



# College AND UNIVERSITY Business

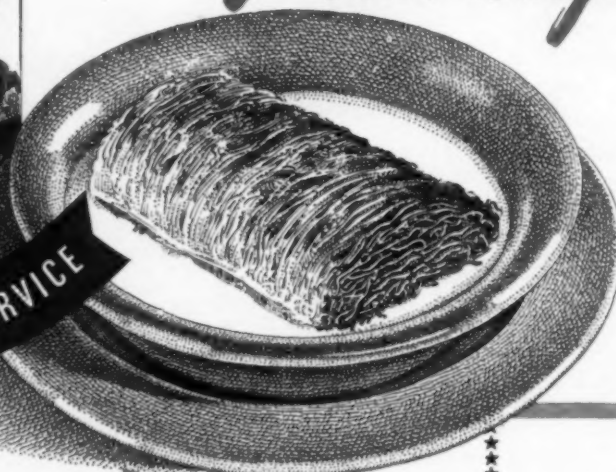
**NOVEMBER 1950: Ethical Standards for Administrators ★ Corporation  
Gifts ★ Student Labor ★ Residence Hall Maintenance ★ Determining  
Sponsored Research Costs ★ Purchasing Policy ★ College Library**



# NABISCO SHREDDED WHEAT

in the

## One Biscuit Package



**THE RIGHT-SIZED  
PORTION . . . AT  
THE LOWEST COST  
PER SERVING! . . .**

A PRODUCT OF  NATIONAL BISCUIT COMPANY

NATIONAL BISCUIT CO., Dept. 39, Niagara Falls, N. Y.  
Please send your booklet "Around the clock with NABISCO".

Name \_\_\_\_\_  
Organization \_\_\_\_\_ Title \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

### No Waste!

Most customers want one biscuit. No leftovers with NABISCO'S One-Biscuit Package!



### Less Cost!

Cut your food cost! Serve one large biscuit instead of two—at the lowest cost per serving.



### Less Cream!

Two biscuits usually mean two servings of costly cream. Save cream with NABISCO!



### Less Sugar!

Another important food cost that's cut when you serve only one biscuit of NABISCO Shredded Wheat!



### Proper Portion!

Each serving weighs one ounce—the amount approved by the government for proper nutrition.



### The Home Favorite!

This is the original Niagara Falls product—preferred by your customers in their own homes!



# College AND UNIVERSITY Business



EDITORIAL DIRECTOR  
RAYMOND P. SLOAN

MANAGING EDITOR  
HAROLD W. HERMAN

ASSISTANT EDITORS  
MILDRED WHITCOMB  
BEULAH H. TORSET

PUBLISHING DIRECTOR  
J. W. CANNON Jr.

DIRECTOR MARKET RESEARCH  
RUSSELL T. SANFORD

PRODUCTION MANAGER  
LEO KEDROK

PUBLISHING AND  
EDITORIAL OFFICES  
919 N. MICHIGAN AVE.  
CHICAGO 11, ILL.  
SU perior 7-6402

EASTERN OFFICE  
101 PARK AVE.  
NEW YORK 17, N.Y.  
MU rray Hill 3-2445

PACIFIC COAST  
REPRESENTATIVES  
McDONALD-THOMPSON  
LOS ANGELES, SAN FRANCISCO  
SEATTLE

Published monthly by The Nation's Schools Division, The Modern Hospital Publishing Co., Inc., 919 North Michigan, Chicago 11, Ill., U. S. A. Otho F. Ball, president; Raymond P. Sloan, vice president; Everett W. Jones, vice president; Stanley R. Clague, secretary; J. G. Jarrett, treasurer. Copyright 1950, by The Nation's Schools Division, The Modern Hospital Publishing Co., Inc. Acceptance under Section 34.64, P.L. & R., authorized. Published on the tenth of the month of the date of issue. Change of address should be sent thirty days in advance of publication date.

Vol. 9, No. 5, November 1950

November 1950

## FEATURE ARTICLES

Should All Faculty Members Participate in Budget Planning?	17
BOARDMAN BUMP	
Ethical Standards for College Business Managers	19
HARVEY SHERER	
Survey of Building Costs	22
As an Alternative to Federal Subsidy, Independent Colleges May Look to Industry	23
HENRY J. ARNOLD	
Employment Office at Minnesota Handles 12,000 Applications Yearly	25
RICHARD J. BENDA	
Master Plans	27
CHARLES BURSCH and RUEL J. TAYLOR	
Chapter House in the Southern Manner	32
D. B. SHOURDS	
Health Center Serves the Needs of Teen-Age Students	34
A. G. HUGHES	
Heidelberg College Remodels Its Business Office	36
ALBERT WALKER	
The P.A. Tries to Teach the Profs	37
HARLAN S. KIRK	
Equal Educational Opportunities for All	38
T. E. BLACKWELL	
Determining Costs on Sponsored Research	40
C. C. DeLONG	
Where, in the Academic Economy, Do We Place the College Library?	42
ROBERT N. BROADUS	
Drexel's Student Labor Program Is Laboratory for Community Living	44
LILLIAN F. HACK	
The Business Manager Looks at Food Services	46
H. B. BENTSEN	
Maintenance of Residence Halls at Michigan	47
F. C. SHIEL	

QUESTIONS AND ANSWERS	6
LOOKING FORWARD	18
NEWS OF THE MONTH	50
NAMES IN THE NEWS	62
DIRECTORY OF ASSOCIATIONS	66
WANT ADVERTISEMENTS	66
WHAT'S NEW	85

## EDITORIAL BOARD

### GENERAL ADMINISTRATION

N. A. WAHLSTROM.....*University of Washington*  
LLOYD MOREY.....*University of Illinois*  
T. E. BLACKWELL.....*Washington University*

### FINANCE AND ACCOUNTING

BOARDMAN BUMP.....*Mount Holyoke College*  
G. A. MILLS.....*Princeton University*  
DON C. WHEATON.....*Kenyon College*

### PERSONNEL AND OFFICE MANAGEMENT

CLARENDON SMITH.....*MacMurray College*  
GERARD BANKS.....*College of Puget Sound*  
CHARLES T. CLARK.....*University of Texas*

### PURCHASING AND STORES

HENRY B. ABBETT.....*Purdue University*  
GEORGE S. FRANK.....*Cornell University*  
CHARLES W. HAYES.....*Emory University*

### DESIGN AND CONSTRUCTION

HENRY L. KAMPHOFNER.....*North Carolina State*  
ERNEST L. STOUFFER.....*University of Illinois*  
PHILIP E. KEENE.....*State College of Washington*

### PLANT OPERATION AND MAINTENANCE

A. F. GALLISTEL.....*University of Wisconsin*  
FRED G. ROUNDS.....*State College of Washington*  
W. A. DAVENPORT.....*Brown University*

### FEEDING AND HOUSING

MARY DEGARMO BRYAN.....*Columbia University*  
T. M. REHDER.....*State University of Iowa*  
CHRISTINE RICKER.....*Stanford University*

### AUXILIARY ENTERPRISES AND RELATED ACTIVITIES

GEORGE F. TAYLOR.....*U.C.L.A.*  
ROY J. MCKNIGHT.....*Baylor University*  
T. N. MCCLURE.....*Knox College*

### STUDENT ENTERPRISES AND SERVICES

HARLAN S. KIRK.....*Lawrence College*  
ROBERT W. FENIX.....*Willamette University*  
PORTER BUTTS.....*University of Wisconsin*

## EDITORIAL CONSULTANTS

JAMIE R. ANTHONY.....*Georgia Tech*  
W. J. BUNTAIN.....*Northwestern University*  
SAM F. BREWSTER.....*Alabama Polytechnic Inst.*  
L. H. FOSTER JR.....*Tuskegee Institute*  
IRWIN K. FRENCH.....*Middlebury College*  
PAUL FRIEDRICH.....*Crambrook Schools*  
REVEREND J. LEO SULLIVAN, S.J.....*Holy Cross*  
CLAUDE L. HOUGH JR.....*The Principia*  
GEORGE F. BAUGHMAN.....*University of Florida*

## Among the Authors

HARVEY C. SHERER, senior accountant in the auditing division of the business office at the University of Illinois, describes on page 19 what he considers are necessary ethical standards of professional conduct for college business officers. Following World War II service as an army officer, he was associated with a public accounting firm in Nashville for two years. He then accepted appointment to the faculty of Upper Iowa University, from which institution he went to the University of Illinois for special graduate work.



H. J. Arnold

HENRY J. ARNOLD, president of Hartwick College, suggests on page 23 that college administrators should consider more assiduous cultivation of industrial corporations for gifts to the college. Dr. Arnold is author of several magazine articles and a book on university teaching. He was given a special fellowship grant from the Carl Schurz Memorial Foundation and Oberlaender Trust to study adult education in Germany in 1932. . . . RICHARD JOSEPH BENDA, a senior journalism student at the University of Minnesota, outlines on page 25 the many services available to the students of his campus as the result of the successful operation of the student employment bureau. He's working toward a career of creative writing and cartooning.



R. J. Taylor

RUEL J. TAYLOR, college plant adviser of the California State Department of Education, has co-authored an article on page 27 in which he describes the procedures followed in developing master plans for several colleges in the state. Prior to his present appointment, he had been a law instructor for 14 years at Sacramento College and was an administrative assistant in the Sacramento school system. Music is one of his major interests, and for many years he was solo cellist for the Sacramento Philharmonic Orchestra. In outdoor moods he takes up hunting and fishing.



R. N. Broadus

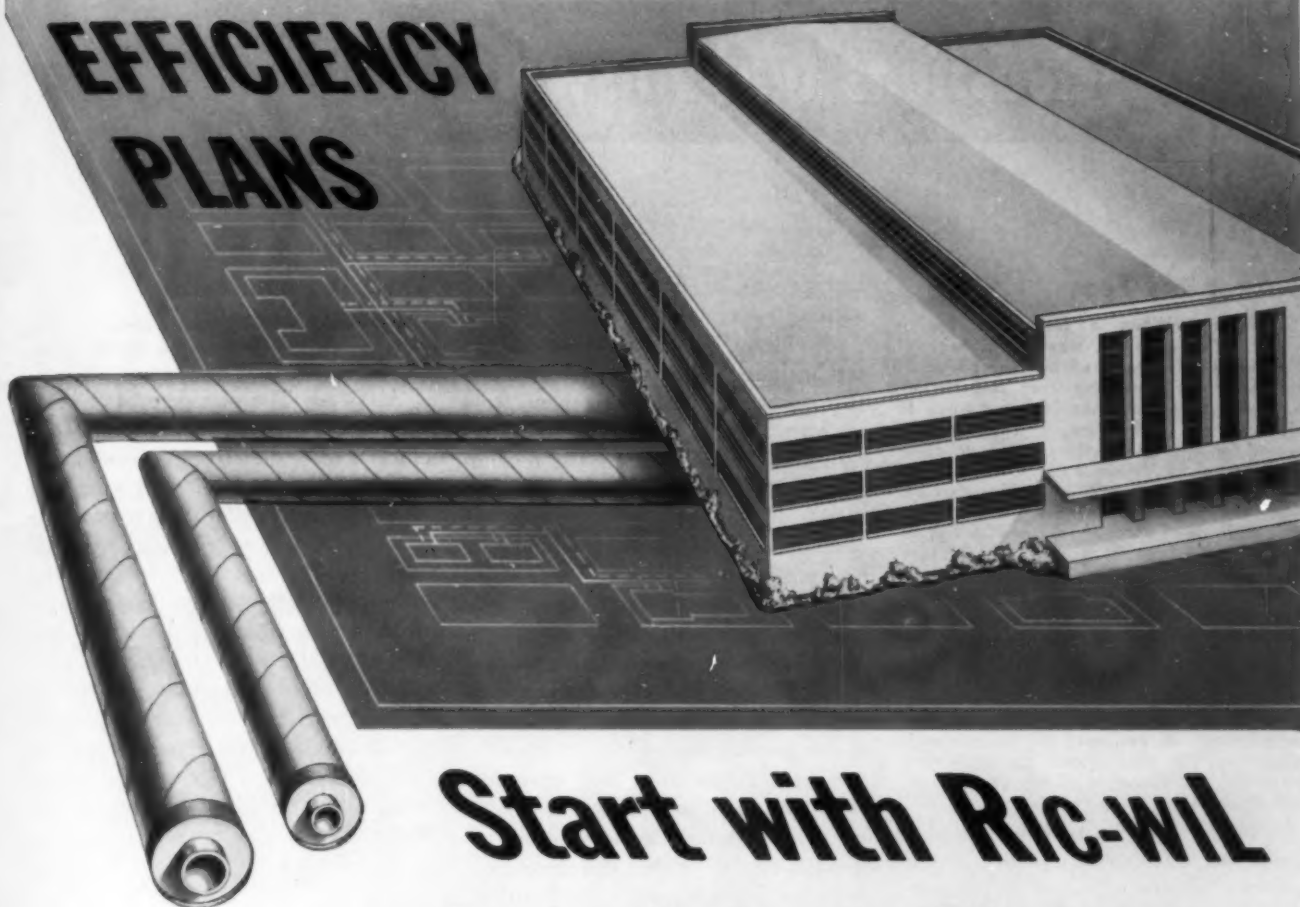
ROBERT N. BROADUS, librarian at George Pepperdine College, indicates on page 42 that the campus library fails to get the budgetary consideration which the college administration should give it. Mr. Broadus has been in his present position since 1947 and is now working toward his doctorate at the University of Southern California. Chess is one of his hobbies when he's not browsing among his books.



L. F. Hack

LILLIAN F. HACK, house manager and dietitian at Drexel Institute of Technology, points out on page 44 that a student labor program should incorporate more than just a job. A work program can be a good laboratory in which to promote leadership and citizenship. She says she had wanted to "write up" her student labor group for some time, but that it required a journalism seminar taken for graduate credit to get the job done. The term assignment was submission of an article to a magazine. The article was accepted.

**EFFICIENCY  
PLANS**



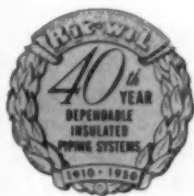
## **Start with Ric-wiL Insulated Piping**

- Ric-wiL Prefabricated Insulated Piping occupies a key position in the planning and production of efficient insulated piping in central heating or air conditioning systems for multiple building projects.

Experienced architects, engineers and contractors recognize Ric-wiL systems as the practical answer for exposed or underground insulated piping. They are custom engineered and prefabricated of the finest materials for quick economical installation, efficient performance, and long maintenance-free life.

The Ric-wiL engineering service, developed through forty years' experience in the insulated piping field, is available for planning and field consultation.

Call the Ric-wiL office nearest you and our representative will be glad to give you detailed technical information as related to your specific problem.



For full technical information on Ric-wiL Insulated Piping Systems, call or write the Ric-wiL office nearest you or Dept. 8-N in Cleveland, Ohio.

**RIC-WIL**  
INSULATED PIPING SYSTEMS

**OVERHEAD • UNDERGROUND**

**THE RIC-WIL COMPANY • CLEVELAND, O.**

**FOR FORTY YEARS THE GREATEST NAME IN INSULATED PIPING SYSTEMS**

# Questions and Answers

## Laboratory Fees

**Question:** When a laboratory fee is charged for a course, what percentage of the fee may be retained by the college as overhead for operating that department, and what percentage should be returned to the students in the form of supplies consumed for their use in the course? In operating a school cafeteria, for instance, the usual practice is that 50 per cent represents raw food costs. Is that the standard that should be used, too, in a foods course in the school? For instance, if students are paying \$10 for a course in foods, may only \$5 of that be used for purchasing the foods they will need for their experimental work, and should \$5 then be kept by the school for the upkeep of that department, replacements, and so forth? To me that does seem to be a rather low return to the students. It would seem to me that if the school retained even 15 per cent of the student's laboratory fee that would be an ample return for the operation of the department. —M.H., Wis.

**ANSWER NO. 1:** The amount of a laboratory fee, when charged, is assumed to represent the cost of the supplies consumed by the student. If this amount is computed with a reasonable degree of accuracy, it will properly include an item for administrative overhead, storeroom costs, and wastage.

Not all colleges charge an additional fee for enrollment in courses that involve laboratory instruction. It is probable that the amount of some laboratory fees is not based upon a realistic analysis of the actual costs of the facilities and services that are presumed to be financed by the fee.—RALPH J. WATTS, *vice president, Lawrence College.*

**ANSWER NO. 2:** I do not know of any standard practice in this respect. It is my belief that when a separate laboratory fee is charged for an individual course, the fee should be arrived at on the basis of an estimate of actual cost to include (1) the average of materials consumed supplied by the department; (2) an allowance for average breakage of equipment, if such loss is not otherwise covered through a deposit or separate charge; (3) (optional) a "use" charge for departmental equipment; (4) other direct operating costs, such as utilities; (5) (optional) other indirect costs,

such as use of general facilities and administrative costs.

Obviously, if all of these charges are included, only those that represent outlays by the department from its own appropriations should be returned to the department. The remainder should go into the general funds of the institution.

Many institutions, even when they charge separate laboratory fees for individual courses, do not return those fees directly to the department. On the other hand, the departments are given definite budgets, and all fees go into general funds and are a part of the general budget.

A still better way, and that followed by many institutions, is not to make any specific charge for an individual course. Either the institution charges a single fee that covers tuition, laboratory charges, and all other items, or if a separate fee of a laboratory type is charged, it is a single fee sometimes described as "laboratory and library," charged uniformly.

One or the other of the two methods is decidedly preferable to separate fees for individual courses. It is more equitable to students and greatly reduces the administrative detail. Costs of laboratory are only one of the expenses of instruction. Nonlaboratory courses frequently require library or other facilities that are equal in cost to laboratory courses. It is unfortunate to deter an individual student from registration in a course for which he may be fitted or which he may earnestly desire to take because of extra expense of that course. A general and uniform charge is preferable from all standpoints.—LLOYD MOREY, *comptroller, University of Illinois.*

If you have a question on business or departmental administration that you would like to have answered, send your query to COLLEGE and UNIVERSITY BUSINESS, 919 North Michigan Avenue, Chicago 11, Ill.

## Who Is Responsible?

**Question:** Who is responsible for the budget—the president or the business manager?—N.K.P., Me.

**ANSWER:** The president of the university is the senior administrative officer and is therefore responsible for the budget. At the University of Washington he assigns the preparation of budgets for the business organization and business operations to the comptroller. Operations budgets for all departments of the university also are prepared by the comptroller, with serious differences subject to review by the president. The final tabulations, coordination of material, typing of forms, and such things are the comptroller's responsibility.—NELSON A. WAHLSTROM, *comptroller, University of Washington.*

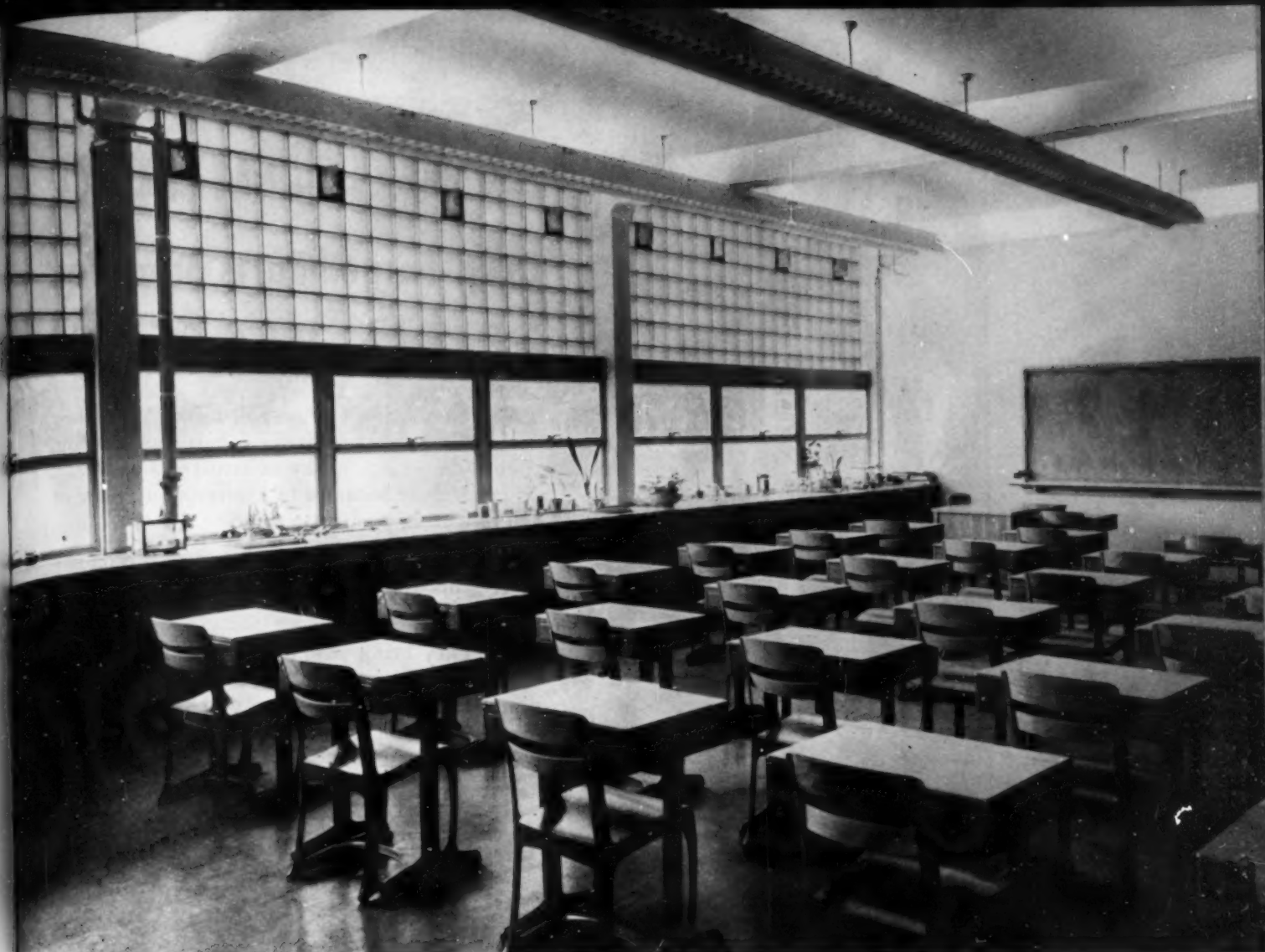
## Care of Football Fields

**Question:** Do football fields need special treatment with fertilizers in order to maintain a sturdy turf?—K.R.K., Okla.

**ANSWER:** This is difficult to answer without knowing the type of soil and the kind of grass you have. As a rule, football fields respond to the same treatment that well managed lawns do. Frequent applications of fertilizer are desirable, and plenty of water. You might check the following with your county agent, but this schedule should do the job:

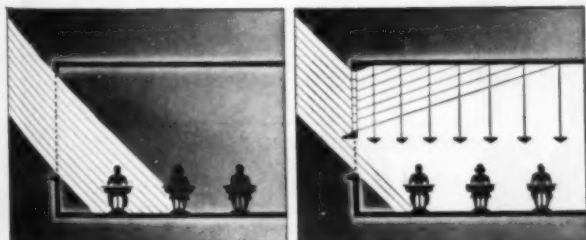
Put down early in the spring 1000 pounds of 6-8-4 or 4-10-7 fertilizer per acre. Follow this in one month with 300 pounds of nitrate of soda, and 300 pounds each month thereafter until a total of 1200 pounds of soda has been used. (Don't forget the water, but don't put fertilizer down when the grass is wet.)

Ammonium nitrate may be used in place of the soda, but put it down in four applications of 150 pounds each. Ammonium sulfate may also be used in place of the soda, but put it down in four applications of 225 pounds per acre.—S. F. BREWSTER, *director of buildings and grounds, Alabama Polytechnic Institute.*



Lake Shore Drive Junior High School, Shreveport, La. Architects: Peyton & Bosworth, same city.

## BETTER SCHOOL LIGHT FOR BETTER SIGHT, THROUGH Daylight Engineering



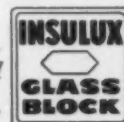
Above, see how child near ordinary window gets harsh brightness and glare, others suffer from high degree of contrast, need overhead light. Right, light beams striking Insulux Glass Block No. 363. See how built-in prisms route light UP, and spread it. Result is even, diffused light over all parts of classroom.

Lighting authorities have shown that bright, uncontrolled daylight in a classroom creates harsh contrasts, results in growth deformities, slows down learning efficiency of students.

Pulling shades and turning on artificial lights wastes time and money. But by *controlling daylight*, lighting efficiency can be greatly increased. Insulux Fenestration controls daylight, eliminates harmful glare. New "pick-up" optical principles capture early morning and late afternoon daylight that old-style windows miss.

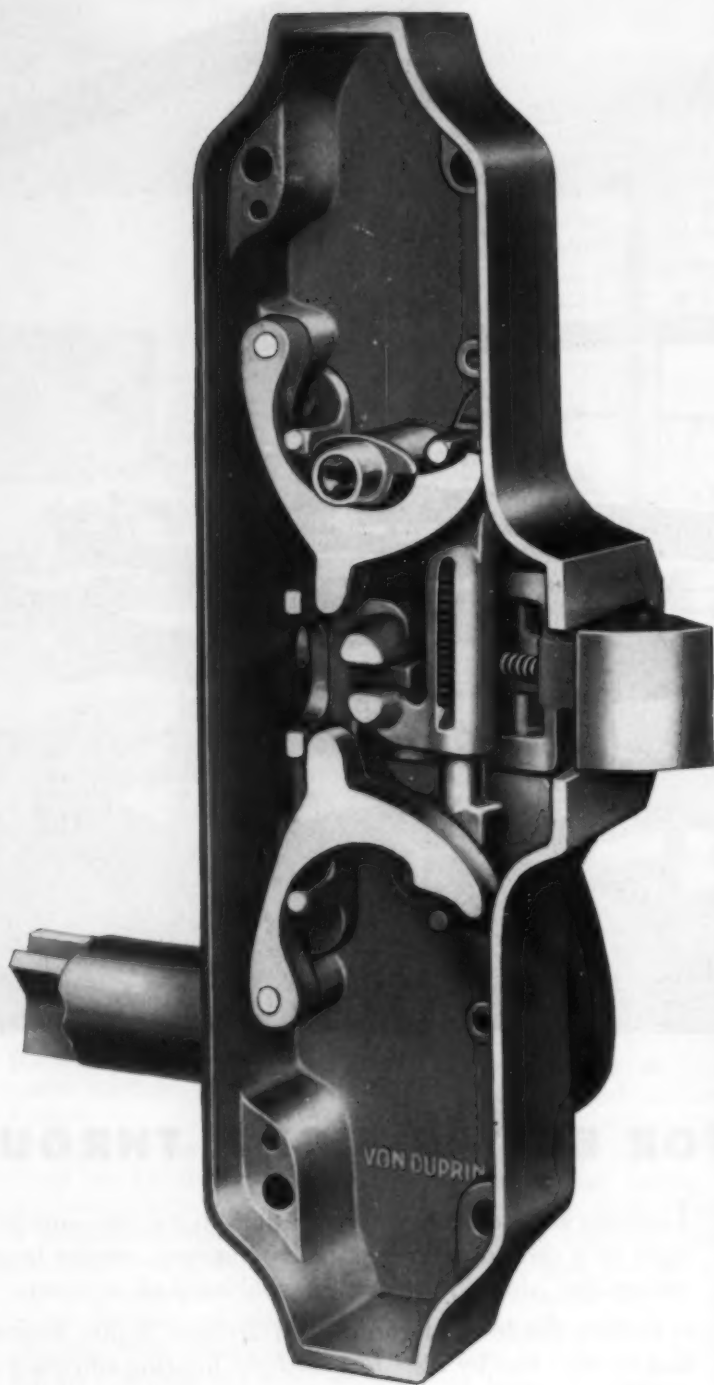
Your present school, or one you are planning, can easily have better light control. A Daylight Engineer will be glad to help you use Insulux Fenestration. For details and new 24-page free booklet, "Better Light for Our Children," write:

Daylight Engineering Laboratory, Dept. CU11, Box 1035, Toledo 1, Ohio. *Insulux Division, American Structural Products Company, subsidiary of Owens-Illinois Glass Company.*



# INSULUX FENESTRATION SYSTEMS

—by the pioneers of Daylight Engineering



*Every part shown in this illustration of an A2 Von Duprin case is of drop-forged bronze except the two pins, the springs, the cross bar and its X-Bar reinforcement. The cross bar is of bronze tubing and the X-Bar of extruded bronze. Until science learns more about metals, there is no way to make a finer, tougher, more durable exit device.*



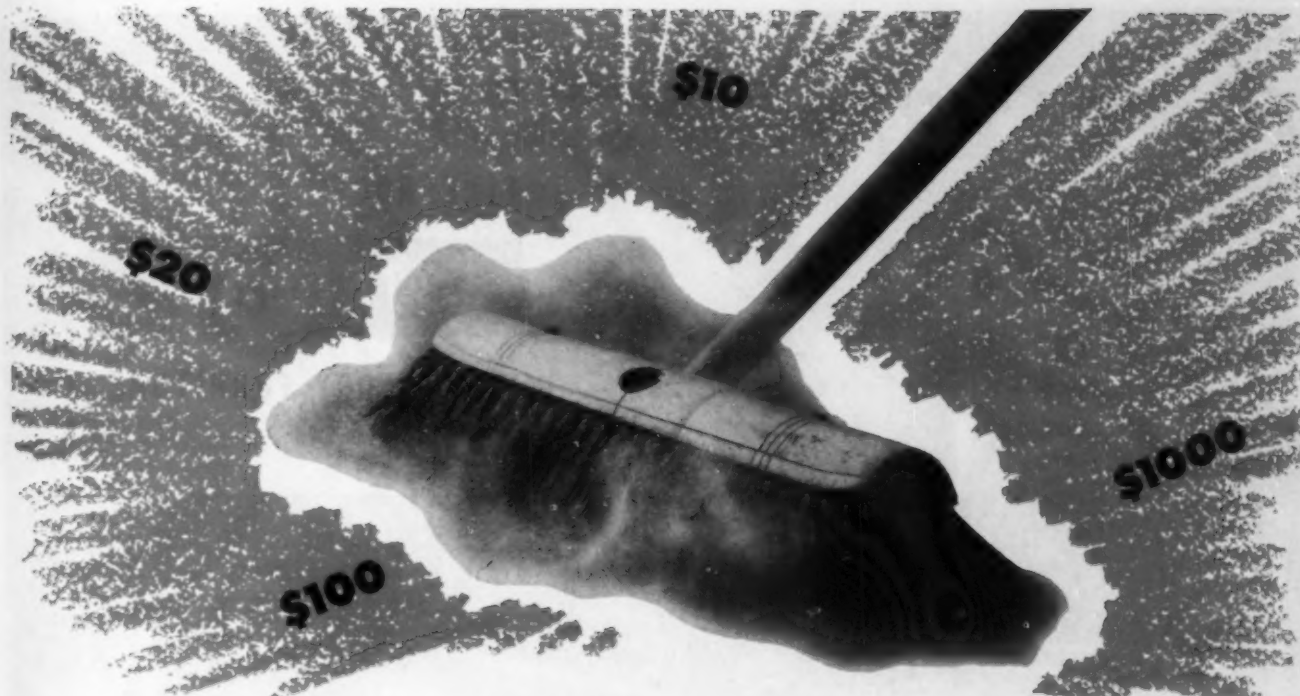
**VON DUPRIN DIVISION  
VONNEGUT HARDWARE CO., INDIANAPOLIS 9, IND.**

# Von Duprin

## Drop-Forged Parts Bring You TRIPLE BENEFITS!

- ★ They bring you ease of mind. You know that the drop-forged parts are strong, tough, dense . . . husky as structural steel . . . and that their accurate fit assures many years of smooth, sure, positive operation.
- ★ They also bring a long range economy impossible with less dense, less tough, less durable metals.
- ★ They bring you, too, the lasting satisfaction of knowing that, even after scores of years of hard use, the devices will have abundant strength to meet the demands of any emergency.





# DUST IS EXPENSIVE

**UNCONTROLLED DUST** that 'gets by' old-fashioned floor care . . . spreads air-borne bacteria that may cause absenteeism . . . redeposits itself in bins, shelves, finished products where it must be removed again . . . tracks into clean areas and makes floor surfaces unsightly and insanitary!

**WESTONE CONTROLS DUST.** Inexpensively. It's an antiseptic floor treatment. Inhibits the growth of certain bacteria right at the source. Loosens and picks-up all dust. Seals surfaces. Holds subsequent dust down for quick, easy removal. Keeps bins clean. Speeds materials handling. Reduces floor maintenance costs up to 50%. As a WEST representative can easily demonstrate. Without charge.

**WESTONE** an antiseptic **DUST CONTROL** floor treatment.



Show me  
how to  
save money  
by controlling  
floor dust

West Disinfecting Company, 42-16 West Street, Long Island City 1, New York  
(64 Branches in the U. S. and Canada)

Gentlemen: I'd like to have a local WEST representative come out and give me a demonstration of Antiseptic WESTONE dust control. On this date \_\_\_\_\_

Mr. \_\_\_\_\_ Position \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

16

*Make a Permanent Capital Investment in . . .*

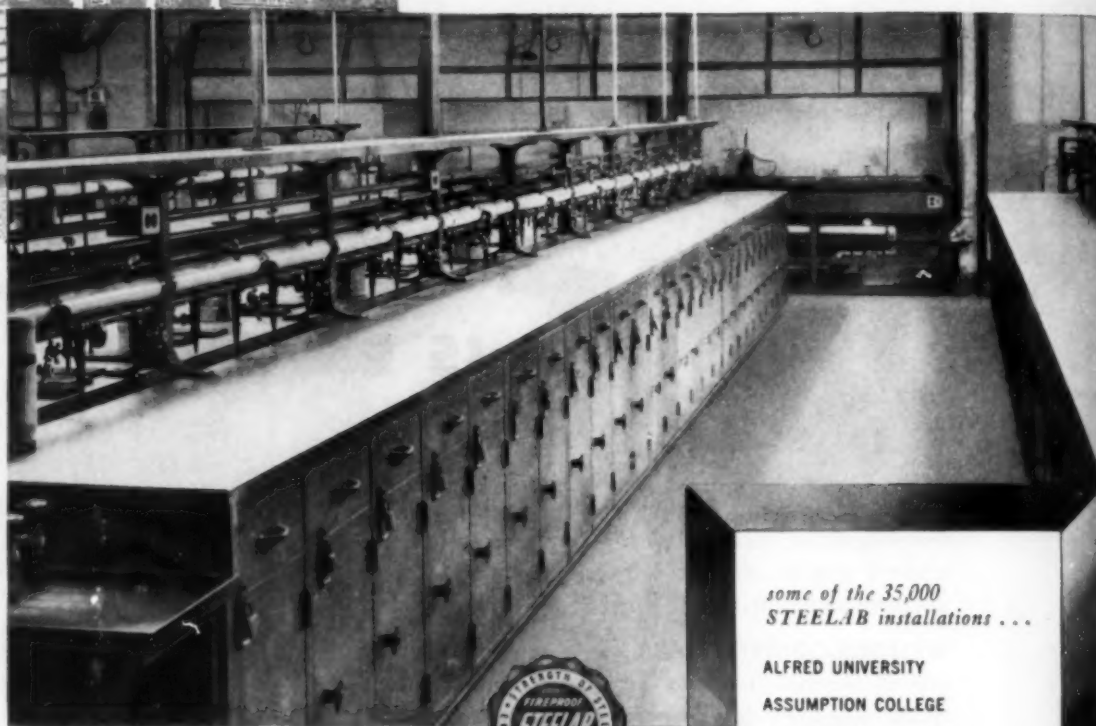


*State Forestry  
College Laboratory,  
Syracuse University,  
one of the  
leading institutions  
equipped with  
STEELAB  
furniture.*

**FIREPROOF**

**"STEELAB"**

**LABORATORY FURNITURE**



*STEELAB installation, Chemistry Laboratory,  
Syracuse University.*



"We made our first installation of STEELAB furniture in 1932 and it is still as serviceable as it was the day we bought it. In addition, we particularly like STEELAB'S flexibility. Our institution has been steadily growing in size for the last fifteen years. Since then many building changes have been made. STEELAB furniture is readily dismantled and installed in other buildings." *Excerpt from a letter by the Purchasing Manager of a large Eastern University.*

*STEELAB Furniture is Manufactured Only By*

**LABORATORY FURNITURE COMPANY, INC.**

37-18 Northern Boulevard, Long Island City 1, N. Y.

LITERATURE WILL BE MAILED ON REQUEST.

*some of the 35,000  
STEELAB installations . . .*

ALFRED UNIVERSITY  
ASSUMPTION COLLEGE  
CALIFORNIA UNIVERSITY  
CONNECTICUT UNIVERSITY  
CORNELL UNIVERSITY  
FLORIDA UNIVERSITY  
JOHNS HOPKINS UNIVERSITY  
M. I. T.  
N. Y. COLL. AGRIC., ITHACA  
NEW YORK MEDICAL COLLEGE  
OHIO UNIVERSITY  
PA. STATE TEACHERS  
RANDOLPH MACON COLLEGE  
SACRED HEART, PUERTO RICO  
ST. JOSEPH'S COLLEGE  
TENNESSEE UNIVERSITY  
UTAH UNIVERSITY  
VENEZUELA

# These ADLAKE Windows will PAY FOR THEMSELVES!



Architects: Kaelber & Waasdorp and Perkins & Will  
Contractor: Swartout and Rowley

The Adlake Aluminum Windows in the new Indian Landing School at Brighton, N.Y., will ultimately *pay for themselves* by eliminating maintenance costs! They require no painting, no maintenance but routine washing! And their smart, modern good looks and smooth operation *will last as long as the building itself!*

Only Adlake Windows have the combination of woven-pile weather stripping and patented serrated guides that assures minimum air infiltration and absolute finger-tip control. And Adlake Windows never warp, rot, rattle, stick or swell!

FOR COMPLETE INFORMATION, write us at 1118 North Michigan Ave., Elkhart, Indiana. No obligation, of course.



## THE Adams & Westlake COMPANY

Established 1857 • ELKHART, INDIANA • New York • Chicago

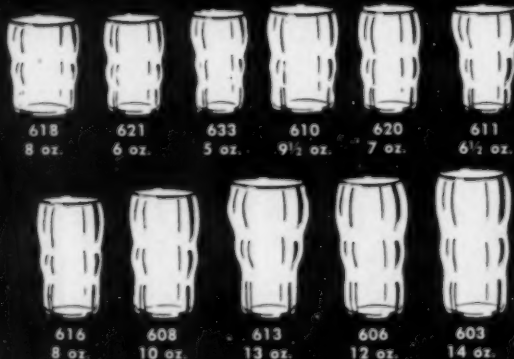
Earning top grades everywhere for

**ECONOMY + UTILITY**

Libbey "Governor Clinton" Tumblers



No. 610—9½ oz.



**Libbey Heat-Treated glasses stand up  
3 to 5 times longer than ordinary tumblers**



THERE'S real cafeteria operating economy for you in these durable lightweight tumblers by Libbey Glass. The glasses are specially Heat-Treated to last 3-5

times longer than ordinary tumblers under heavy "punishment" from students. And every Libbey "Safedge" tumbler has a chip-resistant rim fully guaranteed: "A new glass if the rim of a Libbey 'Safedge' glass ever chips!"

Students and staffs all over the country rate "Governor Clinton" tumblers "A" for all-around attractive styling. The glasses are as pleasing as any they'd use at home, yet simple enough to blend with all types of surroundings.

For new economies enroll "Governor Clinton" tumblers in your cafeteria service. You'll reduce breakage—cut costs through fewer glassware replacements and smaller needed inventory. Write your near-by Libbey supply dealer for samples and prices . . . or direct to Libbey Glass, Toledo 1, Ohio.

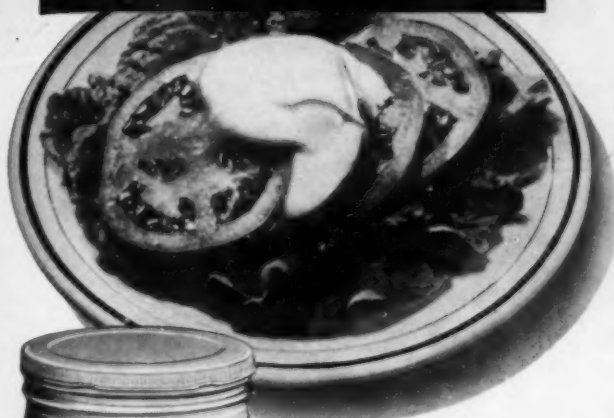
**LIBBEY GLASS** **BOUNCE TUMBLERS**  
ESTABLISHED 1818

LIBBEY GLASS, Division of Owens-Illinois Glass Company, Toledo 1, Ohio



# Menu Magic

## SALADS THAT SING



● **Patrons will sing** your praises—when you make your salads *sing* by using a dressing that gives real, creamy-rich, home-tasting flavor and goodness!

● **Carefully made** from famous Heinz vinegars and other choice ingredients, Heinz 57 Salad Dressing points up the flavor of your salads to perfection. Easy to serve, it is economical and saves the time of your help. Why not talk to your Heinz Man about the details and costs.

## PICKLES WITH ZING!



● **Perk up your menus** and the appetites of your customers by garnishing your dishes with zesty Heinz Pickles, Sweet and other Relishes. They go great with cold plates and sandwich specials!

● **Heinz Sweet Pickles**, Spiced Pickles, Fresh Cucumber Pickle, Sweet and other Relishes are packed in sealed No. 10 and gallon containers to retain their sparkling flavor and make them easier for you to serve. Your Heinz Man will show you that Heinz has *the* pickle for every purpose!

**HEINZ** Salad Dressing

**HEINZ** Pickles

# **THE PREFERRED SCHOOL PLUMBING**



in the **"Scholasticate," Brothers of Sacred Heart**

**WILLIAM R. BURK**, New Orleans, Louisiana  
ARCHITECT

**BUTLER & COBB**, Montgomery, Alabama  
GENERAL CONTRACTOR

**JAMES B. DONAGHEY**, Mobile, Alabama  
PLUMBING CONTRACTOR

Springhill, Alabama

Pictured here are Crane Rhodile Lavatories, of porcelain enameled cast iron. Though moderately priced, the Rhodile offers such quality features as the 6" high splash back, roomy rectangular basin—and exclusive *Dial-ese* faucets, with the interchangeable cartridge unit. Size, 20" x 18". From the complete Crane line of quality school plumbing.



For everything in school plumbing, see your Crane Branch, Crane Wholesaler, or Local Plumbing Contractor

# **CRANE**

CRANE CO., GENERAL OFFICES:  
836 S. MICHIGAN AVE., CHICAGO 5

**PLUMBING AND HEATING •  
VALVES • FITTINGS • PIPE**

# NOW! for floors that must be extra safe

★ NEW JOHNSON'S  
SLIP-RETARDANT  
**Shur-tred**



At last! A tough, brilliant  
floor finish that positively reduces slip hazards\*

*Extra  
safe*

It's new! Johnson's Shur-tred drastically reduces slip dangers...on all types of floors...under all conditions of temperature, humidity, maintenance!

New Shur-tred takes the hazard out of problem floor areas. It has undergone rigid tests on stairways, ramps, and other trouble areas. Shur-tred has been thoroughly tested on the floor in hospitals, schools, and business places.

*\*After a rigid test, Milwaukee's Curative Workshop writes: "Shur-tred has met our need of a non-skid surface on which our paralyzed patients may safely have walking training."*

*Plus  
high  
protective  
shine*

In addition to *extra safety*—new Johnson's Shur-tred gives you *all* the qualities for which Johnson's No-Buff Floor Finishes are famous: brightest shine... toughness... water-resistance... quick drying... easy application. It is *not* tacky, *not* gritty.

## No other finish offers this combination of features!

See for yourself what Shur-tred can do. Mail the coupon for a *free demonstration*.

*If your floors do not need Shur-tred's extra safety factor, your best buy is one of the Johnson's "No-Buff" Floor Waxes: low-cost Green Label or highly water-resistant, wet-mop-proof Brown Label.*

**For a FREE SHUR-TRED DEMONSTRATION  
mail coupon today!**

S. C. JOHNSON & SON, INC.  
Maintenance Products—Dept. CU-1150  
Racine, Wisconsin

- ☐ Please arrange for a Shur-tred demonstration. I understand this does not obligate me in any way.
- ☐ Send me all the facts about Shur-tred.
- ☐ Send free manual "How to Care for Your Floors."

Name \_\_\_\_\_ Title \_\_\_\_\_

Institution \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

"Johnson's" and "Shur-tred" are trademarks of S. C. Johnson & Son, Inc.

# Practical Schoolroom Brightness Ratios

*Hal - This looks like the fixture for our school job - The Wakefield Star - used in coordinated classrooms S.J.V.*

THE latest concepts of brightness control in schoolrooms have attracted the attention of educators, architects, and illuminating engineers. This interest has been increased by the recommendations of the 1948 publication of the American Standard Practice for School Lighting.

The practicability of the recommendations for brightness ratios and reflectances will be confirmed by experience. The results of a recent investigation are particularly timely as they demonstrate that the recommendations for artificial lighting can be achieved with the use of materials readily available.

In April 1948, a room in Mansfield, Ohio, school<sup>1</sup> was remodeled through the installation of new luminaires, new desks with natural wood finish, and through the painting of all interior surfaces. Before the time of installation and late November when the survey was made, the room had minimum maintenance. The lighting equipment had not been cleaned, the diffusers on the windows had not been dusted, and the paint had not been touched up. One fluorescent lamp had been replaced. The only depreciation noted was three small particles showing as dark spots on the plastic luminaires and several heel marks on the lower wall.

The survey was taken on November 26, 1948, from 2:30 to 4:30 in the afternoon. The daylight component was comparatively small at the time that the measurements were taken, as the afternoon was dark and cloudy with some rain. The windows were not provided with shades since the daylight diffusers were designed to reduce sky brightness.

Brightness measurements were taken by use of a Luckiesh-Taylor Brightness Meter. The observer was seated in a rear corner of the room nearest the windows. The brightness readings superimposed on the photograph represent, therefore, the brightness pattern in footlamberts as seen from the particular position on a dark day in late November. On the basis of these readings, the comparison of the brightness ratios to the recom-

mendations for limits of brightness ratios given in the 1948 American Standard Practice for School Lighting (Table I) give values well within the required limits.

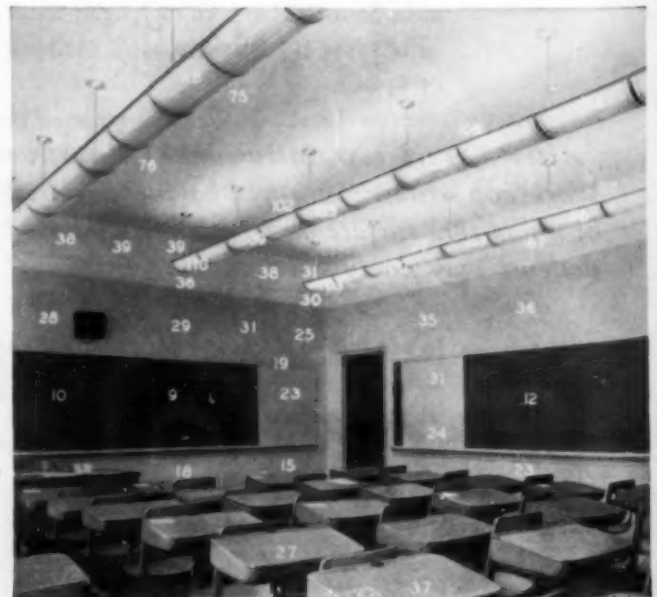
The lighting level is well above the required minimum of 30 footcandles, the lowest value recorded (38 footcandles) being on the desk top in the rear corner of the room farthest from the windows.

The reflectances (Table II) obtained by use of a Baumgartner Reflectometer agree closely with the recommendations. The few cases where the reflectances are above the recommended range seem desirable in regard to brightness ratios.

The room is of standard size, 30 x 22 x 12 feet. The luminaires are of the luminous indirect type with plastic reflectors, each unit equipped with two 40-watt 3500° white fluorescent lamps. The 24 units are mounted in four continuous rows.

The qualities of visual comfort which the room possesses are indicated by the various brightness ratios. The natural finish wood desk top with reflectances averaging 42 per cent gives a very low brightness ratio when a visual task involves white paper with average reflectances of 60 per cent. Visitors comment favorably on the slight variation in brightness between the luminaires and the surfaces adjacent to them.

Figure 1. Room 101, John Simpson Junior High School, Mansfield, Ohio. Figures represent brightness values in footlamberts.



THE F. W. *Wakefield* BRASS CO.  
VERMILION, OHIO

## Should All Faculty Members Participate in Budget Planning?

**BOARDMAN BUMP**

Comptroller, Mount Holyoke College  
South Hadley, Mass.



THE DAY OF THE AUTOCRATIC COLLEGE ADMINISTRATION has passed, and the time has arrived when colleges should be administered democratically. This is an opinion held by many who are prone to paint their pictures either in black or in white. According to those who hold to this view, democratic administration of colleges means that all faculty members and even students should actively participate in the planning of the budget. Experienced administrators realize the ultimate consequences to which an all-out adoption of this point of view could lead.

Let us assume that all faculty members are to be asked to share in budgetary decisions. First, they should be given a thorough grounding in the factual financial problems of the institution, a time-consuming undertaking both for the faculty members and for the administration. Next, opportunities will be granted to all faculty members for expressing individual and departmental points of view. Then will follow the laborious and probably unfruitful process of reconciling the divergent theories and convictions held by all these faculty members so that decisions can be made. One might properly ask whether these decisions will be best for the college. Will they reflect the policies established by the board of trustees or the best judgments of the administration? Will the time and effort expended by professional teachers be more productively spent in conferences and debate than they would in the teaching of students?

It may be cogently argued that good educational administration requires that the administrator be well informed, detached in his point of view from any selfish interest affected by his decisions, and a real leader in fact as well as in theory. If he is all of these things, he will get the points of view of faculty members. He will cooperate in the extreme to make his institution serve the interests of students, faculty and the community, but in so doing he will make decisions that would certainly not always be those in which faculty members will concur.

It would be difficult to conclude from the evidence in hand that the function of administration should be distributed among all faculty members or

even students. The skill of an administrator is to be found in his ability to work with others, to give leadership, and to make decisions that are not so weighted with compromise as to vitiate progressive action. He is employed because he has these skills. It also would be difficult to conclude that the members of a good faculty possess the same abilities as does the administrator or, if they do, that they should be asked to devote their time and energies to administration at a sacrifice to their teaching.

Patently, the cost of so-called democratic administration would be the summation of the time of all who participate in it. How many institutions can afford the luxury of the endless committee meetings or conferences, unavoidable in circumstances where everybody is concerned with everybody else's work? Will not a price be paid for endless litigation over issues raised by those who will argue from untached points of view? Will there not be a loss to progress through the overdoing of compromise and the watering-down of decision? And how can governing boards effectively govern where others are expected to influence policy all along the line? The price of democracy comes high and could be beyond the institution's financial ability to pay.

College administrators are employed to administer, and they are given responsibility and authority to do their job. Faculty members are employed to teach. Students come to college to be educated. Governing boards exist to direct the combined activities of all three groups. The budget is the financial expression of institutional policy and its administrator's decisions. Its preparation requires knowledge, study, time and judgment on the part of those responsible for it. It is difficult to conceive of all faculty members participating to any great extent in this complicated administrative task.

The alternative to an administration popularly described as democratic is not one that is autocratic. Between the two is to be found the ideal, where the captain of the team has the capacity to lead and cooperate with all those whose efforts are directed to producing a better education for students.

# Looking Forward

## Student Deferments

THE INTERNATIONAL TENSIONS RESULTING FROM the war in Korea have caused selective service boards to cast a critical eye on their registrants.

Fortunately for higher education, six advisory committees of educators were appointed in 1948 by Gen. Lewis B. Hershey for the purpose of recommending selective service policies in regard to college-age personnel. The work of the committees involved the problem of making provision for national security by encouraging retention of personnel in the fields of scientific research and development and at the same time making certain "that an adequate armed strength must be achieved and maintained to ensure the security of this nation."

At the conference on October 6 and 7 in Washington called by the American Council on Education, Gen. Hershey went on record as saying that he was in agreement with the major recommendations by the six committees on scientific, professional and specialized personnel.

The committees recommended that within the present selective service regulations a special class of registrants (perhaps designated Class II-A [S]) would include a registrant whose demonstrated educational aptitude is such that his preprofessional training be continued in order to increase his potential value to the national health, safety and interest. Educational aptitude was defined as a score on a general aptitude test equivalent to a score of 120 or above on the army general classification test, and certification by school authorities as giving promise of definite progress in higher education. If a first year student, he must be registered in a curriculum that leads, either in the same or after transfer in another institution, to a degree granted normally at the end of at least four years of college work. Definite standards of academic performance were recommended if the student was to continue to receive deferment and, in the event a student fails to pursue his course in a manner justifying this II-A (S) classification, the college or university would immediately notify his local board of that fact.

In order to retain this deferred status (Class II-A [S]) during intervals between academic years, a student must present evidence that the interval period will be utilized in a manner that will forward his training program. College authorities must certify that he has met the required standards of academic performance during the school year.

If these recommendations become final and filter down to local selective service boards, there is reason

to believe that a substantial number of college-age personnel will continue to be enrolled in America's institutions of higher education.

## What About Loyalty Oaths?

THE PROPHETS OF DOOM ARE HAVING A FIELD DAY. For them, the "wave of the future" that threatens to engulf the free world is a sociological phenomenon that will bring relief to mankind. They view it not with alarm but with an exhilarating anticipation. State worship has become the new idolatry abroad in the world.

And what about college and university administrators? They face stern and difficult choices. They are censured for permitting complete academic freedom and the possibility of irresponsible behavior by faculty or they are damned for requiring faculty responsibility to the institution in addition to academic competence.

The current "loyalty oath" controversy at the University of California is a case in point. Perhaps the oath never should have been required in the first place, but having taken such action the administration must be consistent and enforce it. An institution has the right and the responsibility to determine who shall be members of its staff. If conditions and restrictions are intolerable, the individual makes the choice as to whether that is the place at which he wishes to work.

For many, "academic freedom" is a shibboleth that has encompassed a great deal of territory remote from academic instruction. On occasion, it has been a "protection" for those guilty of impropriety and irresponsibility in conduct and utterance on matters entirely removed from the field of teaching.

The privileges of freedom are not threatened when its responsibilities are not abused. Freedom is not license, it is not irresponsibility. Academic freedom also requires academic responsibility.

In the University of California loyalty oath case, it might be assumed that where there is so much smoke there may be some fire. As Robert Withington of Smith College pointed out in a national educational publication, "Conditions in the universities of Washington and California have upset some of our colleagues because of laws and rules forcing them to swear allegiance to this country and to sign affidavits to the effect that they are not Communists. Every voter on registering, every applicant for a passport, every naturalized citizen has to take such an oath, and no one has objected."

In many "academic freedom" cases, what seem to be involved are muddled thinking and confused issues rather than the abrogation of academic freedom.

# ETHICAL STANDARDS

*for college business managers*

**HARVEY SHERER**

Senior Accountant, University of Illinois



TWO CHARACTER TRAITS ARE ESSENTIAL to every college business manager: absolute integrity and moral courage. A highly developed sense of personal responsibility and the stamina to stand against pressure and criticism also are basic qualities in a college business administrator.

Nor are these characteristics to be desired merely as abstractions. If the business administrator does not have such qualities, as indicated by his conduct, his decisions, and his way of life, then the college is in for trouble.

"Personality traits," "character" and "ethical aspects" are names that society has given to actions and decisions conducive to the survival and welfare of civilization. The problem of making the right choices is supremely important, and men have studied for many years the results of men's actions to discover what is right. This study of the problem of choice is called ethics.

## AUTHOR QUOTED

William Henry Roberts<sup>1</sup> stated the situation aptly when he wrote:

"The practical problems with which life confronts every one of us are questions as to which of two or more possible and attractive possibilities we shall choose. Where there is no choice, there is no problem. If there ever is really only one thing to be done, there is no uncertainty. We do it. If we hesitate at all, it is because we suspect there may be another possibility. When we review and appraise action, our own or others', it never occurs to us to praise or blame actions which could not have been other than they were. Whatever is truly necessary is neither good nor bad, neither right nor wrong.

"We are compelled to choose whenever two or more lines of action are possible and attractive but mutually

exclusive. For the sake of simplicity, assume that we need to consider only two alternatives. To choose is to select one of them and reject the other. If it is possible to achieve both objectives, to 'kill two birds with one stone,' plainly there is no need to choose, and so no problem. A large part of the practical wisdom of life consists in avoiding choices. The possibility of doing that ought always to be explored before we commit ourselves to one alternative or the other."

## TWO LINES OF ACTION

The business administrator faces this problem of making a choice of two or more lines of action every day. Frequently the wrong choice is easier, personally, than is the ethical choice, because it relieves immediate pressure. Examples are numerous: the temptation to gamble endowment funds for more income rather than to preserve the principal; the temptation to avoid making stern efforts to collect overdue student loans rather than to let such payments go by default; the choice of whether or not to tell a trustee that endowment funds cannot be used to build an educational or instructional building; the choice of whether or not to incur the voluble and self-righteous wrath of a professor who is trying to exceed his budget or who disdains the so-called "red tape" necessary to protect the assets of the college.

Classification, the accountant's delight, is useful here. There seem to be nine types of people who call forth the finest qualities of a business administrator. If it is true that a man grows only by overcoming obstacles, stresses and strains, then the individuals classified here may well be called the hormones of character growth in college business administrators. Some, of course, are more potent growth factors than others, sometimes because of

The Formalist, if well known, usually is a leech that is hard to throw off.

local situations, sometimes because of degree of viciousness, or the erroneous or dangerous action they propose.

For the sake of convenience, the following informal classifications will be used: the Formalist, the Legalist, the Technicalist, the Apologist (or the Wailer), the Fanatic, the Bulldozer, the Buddy, the Extrovert, and the Publisher.

The Formalist may be a trustee, professor or president. He makes a formal application in writing to use certain funds, which he knows were left the college for other purposes, but he fails to see why the money should be "wasted." His work is so much more important than the original purpose of the gift. He plans to publish the results of his study, and he needs the money right now.

This gentleman usually desires to "minimize costs" and "maximize results"! When his gobbledygook is translated, he really means that he wants money that he can't get from other sources to make an extended "Study of the Uses of the Ampersand in Business Letters"—a "practical" study!

## WORRY TO BUSINESS MANAGER

The Formalist usually does not create too much trouble unless he happens to be well known, and then he is a leech that is hard to throw off. And he sometimes causes the business manager to worry about finding methods of keeping him from getting his hands on funds that ethically cannot be used for his purposes.

The Legalist believes in using any funds that are not nailed and bolted down. If there is any shenanigan that will release the money, he is for it. This type of man is a pain in the neck to

<sup>1</sup>Roberts, W. H.: *The Problem of Choice*. Boston: Ginn & Company, 1941, p. 6.



The Legalist believes in using any funds that are not nailed down.

any ethical manager. Apparently, he has no particular ethical standards. If the will does not give the donor's intent in such language that it cannot be twisted or turned by the courts, God help the fund! His stand has caused more than one manager to resign in protest against the use of endowment funds as collateral. He has caused many a manager and college accountant to squirm, ethically speaking, as the Legalist advocates hazardous investments for the purpose of "securing greater income"! His goal is always more income; the principal be hanged! And all money that is not protected by signed, sealed and notarized contract is free for any purpose. The spoken word means nothing to him, once the college has possession of the funds. If a trustee, he is dangerous.

The Technicalist is a master at what the army calls barracks-room legalities: He knows all the ins and outs of the college statutes and business procedures. He knows his way around and he takes advantage of every angle. He is a quibbler with words, phrases and logic. He is affable, selfish and greedy. Every requisition he approves must be carefully scrutinized, and his budget must be encumbered with great care! Otherwise, an argument—a strenuous one—will ensue. The business manager may even have to have a dictionary to comprehend exactly what the Technicalist means, for he suffers from "orismological sesquipedalianism."

The Apologist (or the Wailer) is a drain on the business administrator's emotions, mainly his sympathy. He is profuse in his apologies for violating business procedures, hence his name. Usually, if a professor or dean, he will purchase on his own without a requisition, or collect cash on his own, or do any one of a number of things that can throw the budget or procedures into confusion. He has tenure—always. He is insidious; like a sponge, he saps the manager's strength and is apt to be a lightweight.

The best cure is a drastic one—enforce the penalty. One such experience, such as having personally to pay for the extracurricular purchase, will cure him. The administrator must harden his heart against the Wailer's raucous cries of anguish. It is necessary to be adamant, for once, for the sake of good administration in the future.

The Fanatic is wild-eyed, uncropped and unharnessed. His purpose is above reproach but, unfortunately, alien to the announced aims of the college. He is lean, hungry (for funds), and he is a tough nut to stop, even temporarily. The only protection is a sane president and a sane board of trustees. It is vitally important to be ever on the alert with this Fanatic because he will use any means to attain his goal. He is usually not too well versed in business matters, but he is a holy terror in his insistent demands. A calm, cold and sometimes abrupt manner is the best technic to use in handling this man.

The Bulldozer will be found on every campus. He may be in any department, in any rank. He can be quite charming but usually is of a stormy type. He can do anything a caterpillar tractor can do: roar, idle, back up, sidle up, murmur. And he believes he can push over almost anything—if he roars loud enough, makes enough smoke, growls enough, and creates a hullabaloo. He can be handled very nicely by a quiet, firm control of the throttle—his funds. Never release the throttle; keep him quiet. If he roars, let him; he'll soon run out of gas.

The Buddy is a dangerous man. He "arranges," he plays golf, he can do everything the manager can do, and he is excellent company. Friendly, he is a real salesman and a personality boy. He will listen with real sympathy

to the manager's story of his torn hide, his griefs and woes. But, brother, he must be watched! If he seems to become distant on the first "No," then the manager should seek some other friends. This guy is dangerous. If he isn't watched, his department will fatten up at the expense of others. He is so smooth, few will even be aware of it! He is the original anesthetist!

The Extrovert is a big, lovable dog of a man. Everybody is on first-name relations with him. He knows the trustees by name, first name, that is, and he gets around! Boy, how he gets around! Always addressing some group or other. Popular with everyone except his students and you. Side remarks about the business management's adeptness at "choking off his funds" come back to you. His confidential remarks make the business manager's job tough. He must be kept at his distance because, despite his resemblance to a St. Bernard, he has fox terrier characteristics.

The last type of budget-wrecking, nonconforming hedonist who inhabits college campuses is the Publisher. He always has a big printing bill or a large publication budget. He has no conception whatsoever of quality. He publishes everything. He will publish a pamphlet on "Sizes, Type and Disposition of Cockroaches Found in Lower Basin Street," or a booklet on "Abortion in Soya Beans," as soon as a book on "Indentation in Milton's Poetry." Everything, anything, to get his name in print. Beware, or his promotion will wreck peace and harmony in the college business relations.



The Fanatic bears watching. He will use any means to attain his goal.

These, then, are some of the types of persons who help make business administrators strong in character by bringing up the problems of choice. These are some of the men whom the administrator can thank for ulcers and nerves, for distinguished gray hair



The Wailer is a drain on an administrator's emotions.

(premature, if any), and for the fine lines of character in his face.

But, seriously, are there any guides which business administrators can use to help them make the ethically correct decisions? Are there certain principles upon which they can take a stand? Are there any *standards* of conduct which, like religion, can strengthen the fiber of a man?

The answer to all of these questions is an emphatic "Yes"! Rules and principles have been developed through the years, through the errors of many managers and through painstaking examination of the experiences of hundreds of colleges. These lessons, these studies of the results of certain actions, have been tested and retested, tried and retried, and found to lead to the best results for the college and for society.

This does not mean that such action is necessarily the easiest for the administrator, but they are guides, principles—ethical standards, if you please. It is on these standards that actions must be based. It is on these standards that management can base its actions and be confident that they are *right*.

These principles are not found in one book, but most of them can be found in "Financial Reports for Colleges and Universities."<sup>2</sup> Other principles will be found in the published works of Trevor Arnett, Lloyd Morey, John C. Christenson, Thomas E. Blackwell, George E. Van Dyke, John Dale Russell, and others. These writers all



The Bulldozer can do anything a tractor can do.

have agreed on certain principles on which the college administrator can take his stand with assurance. Following is an incomplete list of the most

<sup>2</sup>Morey, Lloyd, chairman: *Financial Reports for Colleges and Universities*. Chicago: University of Chicago Press, 1935, pp. 285.



The Buddy is a personality boy, but he's dangerous.

important guides to the proper choice in the making of decisions.

#### ENDOWMENT AND TRUST FUNDS

1. College endowment is a fund, the principal of which is invested and kept inviolate and only the income used for the general support of the college or for some specific object in connection with it. The fund thus established is sacred and should not be touched or encroached upon for any object whatsoever; its income alone is available.... A college has no right, moral or legal, to "borrow" from its endowment, to hypothecate endowment securities, to "invest" endowment in (nonincome) college buildings and equipment, or, in fact, to do anything with endowment except to invest it so that it will produce a certain and steady income.<sup>3</sup>

2. Profit realized from sale of an investment should increase the endowment, and loss should diminish it.

3. When bonds are bought at a premium, the premium should be amortized.

4. Pledges and subscriptions are not assets until paid.

5. College accounts are trust accounts, and the accounts *must* show that trust operation.

6. All gifts are added at cost or at estimated value when cost is not known.

7. The doctrine of *cy pres* is dynamite, but careful and infrequent use of it is ethical.

8. Endowment investment in auxiliary enterprises should be indicated on the balance sheet.

9. There is a moral obligation to

<sup>3</sup>Arnett, Trevor: *College and University Finance*, New York, General Education Board, 1922, p. 24.

use funds in the manner prescribed by the donors.

10. Loan funds are not gift or fellowship funds. Their principal should be protected by good procedures in loaning and collecting.

11. All expenditures should be made through a central office.

12. All receipts should clear through one administrator.

13. All purchasing should be made by one central office.

14. Receipts and disbursements should be recorded, classified and reported by funds.

15. Current income should be reported by source; current expenditures by function.

16. Receipts and disbursements, which are not of an educational nature, should not be reported as such.

17. Proper procedures should be taken legally to safeguard securities.

18. A budget, formally approved, is a necessity as a plan for the year.

19. The budget must be operated impersonally.

20. Every department must be informed regularly of its budget status.

21. Every department must be informed as to changes in its budget.

22. The budget is a plan, a guide—not an inflexible order. But it should be changed only by formal order and approval, and with caution.

23. A college, whether public or private, is a quasi-public institution and, as such, should publicly account for its funds.

24. Fund accounting is essential to college reporting.

25. An annual audit is essential.

26. The reports of the college should include *all* assets and liabilities of *all* funds, including research corporations, foundations and so forth.

27. All facts should be revealed clearly.

28. Information available in the reports should be comparable to similar information in other college reports.

29. Physical plant additions should be reported at cost.

30. A college is not a savings institution or a factory. It is not its



The Extrovert has the characteristics of a fox terrier.

purpose to pay dividends or to build a surplus, but to spend.

31. Administrative records required of professors should be kept to a minimum, but necessary records insisted upon.

32. Student organization funds should be administered or closely supervised by a central staff authority.

33. Agency funds, if material in amount, should be separately reported.

34. Auxiliary enterprises should be accounted for as commercial enterprises and be at least self-supporting.

35. Auxiliary enterprises should pay for power, light, supervisory, janitorial and other services furnished by the college.

36. The business office exists to serve the college, protect the assets, and direct the collection and disbursement of funds.

37. To be safe, be familiar with and follow the recommendations of the National Committee on Standard Reports for Institutions of Higher Education as embodied in its final report, "Financial Reports for Colleges and Universities."

38. The following quotation should be framed and placed where board members, the faculty, the staff, and the manager can see it:

"When men combine together for any common object, they are obliged, as a matter of course, in order to secure the advantages accruing from united action, to sacrifice many of their



The Publisher does anything to get his name into print.

private opinions and wishes and to drop the minor differences, as they are commonly called, which exist between man and man. No two persons perhaps are to be found, however intimate, however congenial in tastes and judgments, however eager to have one heart and one soul, but must deny themselves, for the sake of each other, much which they like or desire, if they are to live together happily. Compromise, in a large sense of the word, is the first principle of combination; and anyone who insists on enjoying his

rights to the full, and his opinions without toleration for his neighbour's, and his own way in all things, will soon have all things altogether to himself, and no one to share them with him. But most true as this confessedly is, still there is an obvious limit, on the other hand, to these compromises, necessary as they are; and this is found in the *proviso*, that the differences surrendered should be *but* "minor," or that there should be no sacrifice of the main object of the combination, in the concessions which are mutually made. Any sacrifice which compromises that object is destructive of the principle of the combination, and no one who would be consistent can be a party to it."<sup>4</sup>

These are not all the principles of good college management, but they are safe standards to follow as proved by the experiences of those who have violated one or more of them. And because experience has proved them, they are ethically correct choices in the ever present problem of choice, which the business administrator constantly faces.

<sup>4</sup>Newman, J. H. (Cardinal): On the Scope and Nature of University Education, New York, Everyman's Library, No. 723. Edited by Ernest Rhys, 1943 edition, pp. 13, 14.

## Continuing Survey of Building Costs Conducted by College and University Business

College	Function of Building	Type of Construction	Total Cost	Total Cubage	Cubic Foot	Contract Cost for			Approximate Wage Rate					Date of Contract
						Gen. Construction	Heating, Plumbing	Electrical	Electricians	Bricklayers	Masons	Plumbers	Carpenters	
Univ. of Colorado	Physics	Reinforced concrete frame; stone veneer on outside walls; tile roof	\$ 533,113	573,447	30.92	\$424,287	\$ 59,933	\$48,893	\$2.50	\$2.75	\$2.75	\$2.40	\$2.10	Aug. '50
Univ. of Miss.	Library	Brick; steel; concrete	1,113,995	692,754	1.61	594,166	171,000	62,788	2.25	2.50	2.50	2.75	1.50	.....
Univ. of Miss.	Dormitory for Women	Brick; concrete	300,000	295,036	1.02	231,776	34,653	13,968	2.25	2.50	2.50	2.75	1.50	.....
Univ. of Miss.	Alumni House	Brick; concrete	237,325	168,966	1.34	176,123	37,780	9,916	2.25	2.50	2.50	2.75	1.50	.....
Duke University	Nurses' Home	Brick	846,000	740,205	1.14	552,819	\$44,585	\$39,543	47,229	1.75	2.25	2.25	1.50	Aug. '50
Duke University	Addition to Medical Research Building	Brick	292,500	254,800	1.15	118,802	34,000	44,400	14,518	1.75	2.25	2.25	1.50	July '50
Duke University	Graduate Men's Dormitory	Brick	1,804,928	1,290,000	1.17	961,800	89,000	87,000	53,640	1.75	2.25	2.25	1.50	Sept. '50
Pacific Lutheran College	Chapel-Music-Speech Building	Concrete; brick facing	580,000	650,000	0.66	419,931	\$ 68,950	39,990	2.40	2.50	.....	2.50	2.37	.....
Univ. of Texas Medical Branch	Laboratory	Fireproof; concrete frame; brick and stone exterior; flat roof	1,432,989*	758,250	1.89	733,750	316,969	63,104	2.37	2.62	2.62	2.37	2.12	July '50
Iowa State Teachers Coll.	First Unit of Laboratory School	Brick; stone trim; steel frame; reinforced concrete floor	862,197	1,160,375	0.74	655,916	139,996	66,265	.....	.....	.....	.....	.....	June '50
Iowa State Teachers Coll.	Women's Dormitory	Brick; stone trim; steel frame; pre-cast concrete floor	912,860	.....	.....	730,522	138,361	43,977	.....	.....	.....	.....	.....	Apr. '50

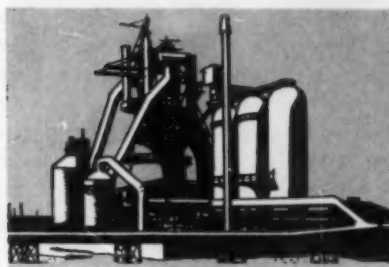
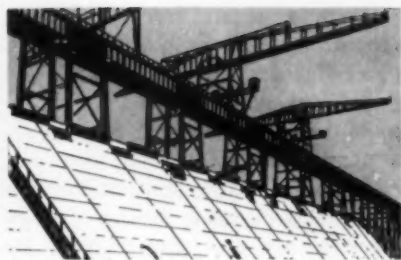
\*Includes architects' fees.

As an alternative to federal subsidy,

## independent colleges may look to **INDUSTRY**

**HENRY J. ARNOLD**

President, Hartwick College, Oneonta, N.Y.



NEXT TO FREEDOM, PERHAPS THE most priceless of our American heritages is the independent liberal arts college. It has often been spoken of as the "bulwark of democracy." Because of their independence from state and federal support, privately endowed colleges and universities are more secure in their freedom from political pressure. They are, in fact, living examples of the highly prized American economic principle of freedom of enterprise.

This principle, which is inherent in their very nature, not only forms the basis of their philosophy of education but also reflects itself in their relationships with tax supported institutions. Furthermore, it finds expression and application in their classrooms and laboratories.

### **INCOME INSUFFICIENT**

At present, the independent colleges, for the most part, are confronted with serious financial difficulties. The majority of them are not receiving enough income to keep their current operating budgets out of the red. Even more disturbing is the prediction by recognized college authorities that this condition is likely to continue for at least five more years, unless ways and means of alleviation are found.

"American colleges and universities face the greatest financial crisis that they have experienced in the last 50 years," says Dr. Henry M. Wriston, president of Brown University and

head of the Association of American Universities.

Last January *Collier's* published an article, "Are We Going to Junk Our Colleges?" by Benjamin Fine, education editor of the *New York Times*. In it Dr. Fine warned: "Our colleges and universities are in a bad way. Today one of every five is hobbling along on a deficit. By next year, nearly three out of every five may be in the red. The plain, brutal truth is that our institutions of higher learning are not getting enough money to keep going."

### **GIFTS ARE FEWER AND SMALLER**

The reasons for this unfavorable situation are readily apparent. College operating costs have practically doubled since 1945. Endowment and investment income, the stabilizing factor in college financing, is proportionally smaller than in prewar days. And what about gifts to colleges? Dr. Fine discovered in a survey of 630 colleges that 97 per cent reported greater difficulty in raising money now than a year ago. The vast majority of college executives know from experience that while individuals still give to colleges, on the whole, the gifts are considerably smaller, and there are fewer of them.

Is there a way out? Some have suggested a still further increase in tuition fees. To do this would result in driving away not only prospective students but also many now in college who are obliged to skimp and save to meet

their financial obligations, for it is now generally recognized that tuition charges are already higher than the traffic will bear.

Others have suggested that the colleges should band together and ask the federal government to come to their rescue. While this may become necessary if other forms of aid are not forthcoming, it is the firm belief of most college executives that such a step should be taken only as a last resort. Federal aid to education, however altruistic in spirit, opens the door to a certain degree of government control and conceivably also to political control. Such control could mean only one thing—the compromising of the highly prized freedom that is the very warp and woof of the structure of the independent colleges. Despite overwhelming obstacles, these institutions have been able to maintain a laudable spirit of freedom throughout the years, a spirit that is indispensable for the perpetuity of our American way of life.

There is, however, a rather promising alternative to government support of the independent colleges; that alternative is American industry. This is not just a pious hope of worried college executives. Leaders of industry, who recognize the gravity of the problem confronting the independent institutions of higher learning, are calling upon the strong corporations to contribute systematically to the financial support of these schools.

### **NEED SUBSTANTIAL HELP**

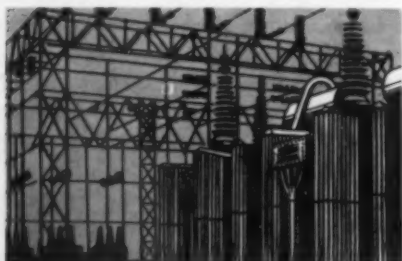
Emphasizing the urgency of the financial distress in which the independent colleges and universities find themselves today, Laird Bell, director of several large corporations and chairman of the board of trustees of Carleton College, writes in the *Atlantic Monthly*: "There is no need to expand on the plight of the endowed institu-

tions. Teachers must eat, like the rest of us, and their salaries will have to follow the cost-of-living curves. State pride can be counted on to enlarge university appropriations to meet growing costs. But endowment funds are not so elastic; rather, their yield has been drastically cut down. Tuitions cannot be raised indefinitely in competition with the state supported schools, even if the colleges were prepared to disregard the bad social effect of excluding students of slender means. At best, mounting costs and falling income may well snuff out the endowed lamps of learning in the fairly near future, unless substantial help is forthcoming from sources that can afford such help."

#### BUSINESS LEADERS CITE VIEWS

T. R. Mullen, president of the Lehigh Structural Steel Company of Allentown, Pa., writes: "American industry would not be tight in its purse strings if it fully understood the benefits that would come to it from contributions to colleges out of its profits. Few corporations contribute the 5 per cent of net income before taxes that is allowed by the federal government. Consider what this would mean to private educational institutions—if all industrial America felt that it had a social obligation to aid in the maintenance of these colleges. Let industry adopt such a program and the need for federal aid, with all its hazards, will vanish. These institutions themselves would much prefer contributions from industry, where they know there will be no strings attached."

Another prominent industrial leader who has raised his voice in favor of aiding the independent colleges is Frank W. Abrams, chairman of the board of the Standard Oil Company. In an address before the Association of American Colleges last year, Mr. Abrams said: "If our private so-called independent colleges and universities, because of lack of financial support, should be absorbed into a state educational system or become wards of the federal government, American higher



education would be seriously weakened, and we would be well on the road toward socialism and the destruction of free enterprise."

The testimony of these industrial executives, while stressing the perils of government aid, also may be construed as a recognition of the fact that American industry has an important stake in keeping the independent colleges and universities free financially, in order that they may be free educationally.

Many industrial leaders are keenly aware of the importance of maintaining the principle of free enterprise as opposed to government control, in order to safeguard their own and the nation's prosperity. Perhaps they are less keenly aware of the contribution the independent colleges and universities are making toward the perpetuation of this principle in the thinking of the American people.

#### FREE FROM POLITICAL INTERFERENCE

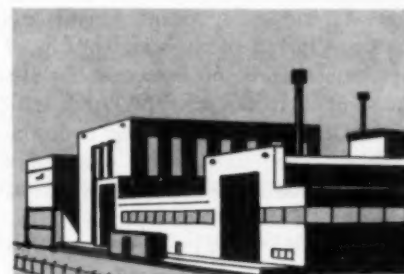
Alert industrial executives recognize the urgency of maintaining the free enterprise system to ensure the financial stability and productive strength of their corporations. But there is some doubt as to whether big industry in general is aware of the fact that this system thrives best in a climate of social and economic ideas that is favorable to its development. While the tax supported institutions of the country are fully conscious of the importance of safeguarding their academic integrity, there seems to be general agreement that the independent, privately endowed colleges and universities are more secure in their freedom from political interference. It would seem decidedly in the interest of industry to give assistance to these institutions which are, in fact, the citadels of freedom in the broadest sense of the term.

Another cogent reason for industrial support of independent higher education is the social obligation that goes with the wealth held by corporations. In my opinion, this obligation should be recognized as one inherent in the control of wealth and not only should include giving to community projects, such as Red Cross, cancer, heart and infantile paralysis appeals, but should go much farther and include particularly the field of higher education. The barriers against charitable giving on the part of corporations have long since been broken down, but they seem still to stand against giving to educa-

tion. It would seem that the time has come for industry, in general, to consider the relative value of the causes that it is called upon to support.

Assuming that the colleges produce men and women who are capable of occupying places of responsibility and trust in industry, it follows that it is good business for a corporation to support institutions that produce them. It also would seem clear that modern industry has a large stake, especially, in the production of intelligent, well balanced, morally responsible citizens at the college level.

There are several forms of financial support that are always acceptable to the colleges. The need of scholarships is especially urgent today. These could be restricted according to the wishes of the corporations providing them, or a scholarship endowment fund could be made available. Some industries are providing work opportunities for deserving students who are approved by college administrations. An annual grant for special research



is another acceptable form of financial support that can be of great help to the college. The endowment of a professorial chair, such as economics or business administration, provided there are no hampering restrictions, is a most acceptable form of financial support.

Think what it would mean if all the major industries in America recognized and accepted their social obligation to lend a hand in the financial support of the independent colleges and universities. The adoption of a program of systematic giving to these institutions, now numbering more than 600, quickly would remove the need for government subsidy, as well as the many pitfalls that are connected with such support. It would be the best investment that corporations could make.

Let industry ponder well the words of Dr. Fine: "Our colleges and universities are worth saving. They are the foundation stones of our democracy."

## RICHARD J. BENDA

Journalism Student  
University of Minnesota

THE UNIVERSITY OF MINNESOTA student employment bureau has operated with such success that schools all over the country have used it as a model.

The bureau has been the "friend in need" to thousands of students, helping them get the jobs they needed to earn the money that has paid for their education. It supplied 4542 students with jobs during the last fiscal year, during which period these people earned \$3,500,000.

Although the present job placement function is a development of the office of civil service personnel established in 1942, the actual origin of the employment bureau can be traced as far back as 1911. President Vincent, then head of the university, casually remarked to a friend one day while crossing campus that the administration ought to have an organization that could help students find employment. The idea stuck with him, and he included the suggestion in his 1911 presidential report. A year or two later his suggestion became a reality, and a job placement office was established. That first year 459 applicants for jobs were registered. From this modest beginning, the placement office has grown to a point where it is now handling about 12,000 applications yearly, including both student and full-time help.

Throughout World War I and the Twenties, the rising cost of living greatly enhanced the job placement function at the university. In 1928 a trained director was placed in charge of the employment bureau.

The stock market crash and the depression were soon to follow. It was during this period that a need for greater economy and better integration arose, and the administrative machinery now in use by the student employment bureau began to take shape. Departmental offices were reorganized and, as a natural sequence, came a new job classification system and an organized pay plan. A merit system was established whereby ambitious and per-

severing employees would be rewarded for their enterprise. To complete the setup, a testing program was initiated to screen job applicants, and a records division was established to handle applications and other case history data. Originally, these functions were set up to deal with full-time employment but soon were converted to cover student part-time employment as well.

Further developments in the job placement function prompted the board of regents in 1942 to create the office of civil service personnel, of which the student employment bureau is now a part. This section, together with the civil service employment bureau (which serves nonstudents), the classification and training division, the

testing division, and the personnel records division, makes up the office of civil service personnel.

What was once a simple matter of sending students to apply for a job has now become a highly specialized technic. The student employment bureau must determine the applicant's financial need, his major interests, training and experience, personality traits, and the amount of time he can afford to spend working without harming his scholastic standing, and perhaps test his qualifications for certain types of work. This means highly specialized interview technics and the use of specially designed application forms.

When a student first enters the bureau office, he is given an application



## EMPLOYMENT OFFICE

*at Minnesota handles 12,000 applications*

*yearly for student and full-time help*

form to fill out. Besides the usual data (name, address, age, etc.), there is a listing of perhaps 50 job fields that the student is asked to check for interest and experience. Below this is space to suggest any type of job which may especially appeal to him or for which he may feel that he is qualified. This information is used to place the student in a job that will be satisfactory both to himself and to an employer.

The bureau is particularly interested in obtaining this job satisfaction. Naturally, in a large-scale operation of this type there are always a few students who choose to "gold-brick," or who do less work than an employer has a right to expect. Others show spotty attendance or quit at inopportune times without giving employers notice. The bad records of these comparatively few may sour an employer on further use of student helpers.

For work on campus, the bureau has a listing of about 500 job classifications ranging from swineherds and glassblowers to artists and x-ray technicians. Outside of university jobs, the

range is still wider. The office is no longer surprised to receive an order for a clown, an Indian, or a Santa Claus—or for a morgue attendant, a night club entertainer, or a companion to take Junior swimming. However, most of the placements are in the more commonplace vocations. For example, today's average pay roll at the university includes 1200 teaching and research assistants, about 600 clerical workers, and 500 custodial and food service workers.

#### EARNINGS RISE

Although total job vacancies have dropped from 6965 to 6295 in the last year, the number of placements has dropped only 197, from 4739 to 4542. Total earnings, however, actually rose from \$3,095,177.69 to \$3,474,700.64, the majority from campus jobs. A clearer picture can be gained from a study of the fall quarter statistics for both 1947 and 1949. Although the number of job vacancies dropped well over a thousand, the number of placements lost was less than 200. Prevail-

ing business conditions constitute the reason for the loss in job openings in the last couple of years.

Because a student is sent to fill a vacancy does not necessarily mean that he will get the job. He is interviewed in most cases by the prospective employer, and in some cases he may be given an initial performance test to determine his fitness for the job.

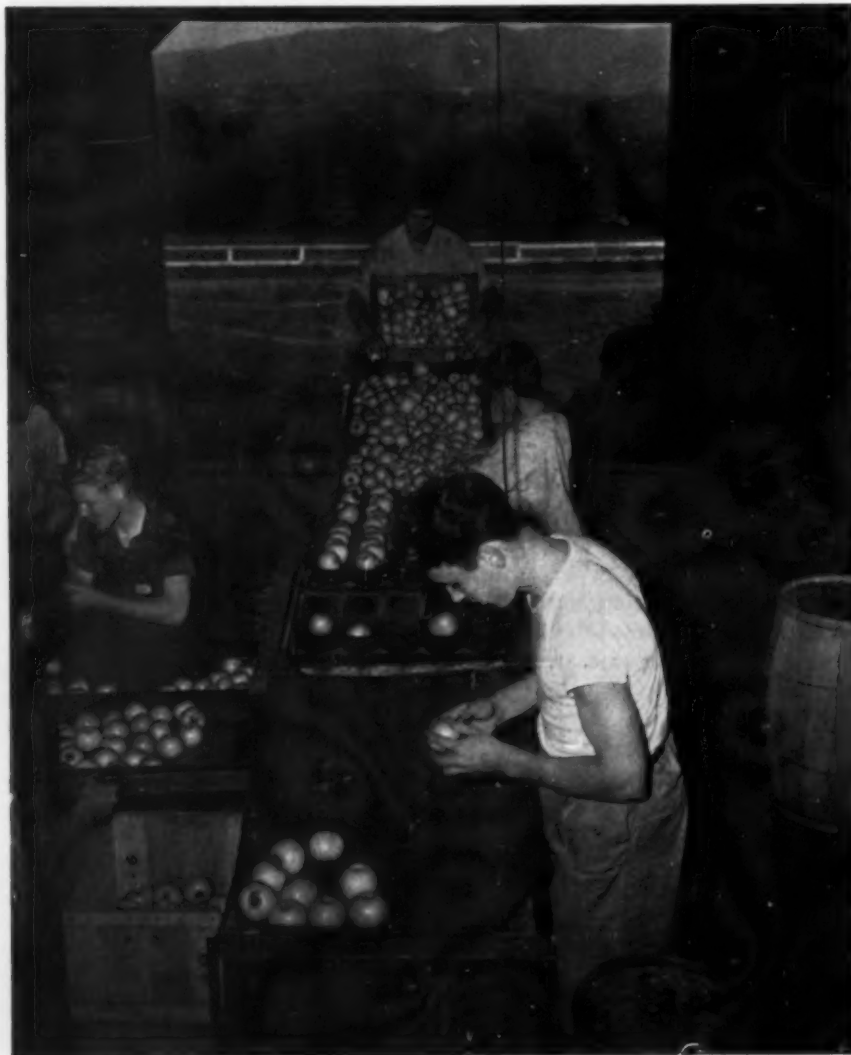
Of all the benefits of the present student employment program at the university, Walter Kaul, bureau director, considers the pay system by far its main advantage. Under the university's civil service setup, students are guaranteed a minimum of \$0.81 an hour. There is no maximum wage a student can earn.

"I believe students should be paid wages commensurate with nonstudents' for the same jobs," declares the bureau director. "There is no good reason for paying them less just because they are students. After all, because a person is attending school does not make him any less fitted to fill a certain job than one who is not."

Many students are gaining valuable work experience in vocations they plan to enter after graduation.

Every possible avenue of publicity has been exploited at the University of Minnesota to bring the student employment bureau before the eyes of prospective employers. It is imperative that employers be notified in some way of the availability of student help. Students who do their jobs well are the organization's best advertisement.

For work on campus, the bureau has a listing of about 500 job classifications. There is a still wider range of classifications for off-campus workers.



# MASTER PLANS

## How long-range planning for state regional colleges of California is being developed

CHARLES BURSCH and RUEL J. TAYLOR

Assistant Division Chief and College Plant Adviser, Respectively  
California Department of Education

IN DEVELOPING MASTER PLANS FOR colleges, it is not enough to buy a big site and build the first building on the corner, leaving "room for later expansion." Long-range plans in substantial detail should be made before the first building layout is sketched.

Although it is true that exact future needs and enrollments cannot be predicted, a fairly accurate probable enrollment in each subject can be projected, and from those data the future classroom needs for that subject can be determined. When this has been done for the entire curriculum, and the various rooms have been grouped into buildings, those buildings can be plotted on the site. Only then is it possible to determine whether the site is adequate for the future plant.

California is developing a system of regional state colleges located in various parts of the state which are rapidly increasing in enrollment because of the sudden postwar increase in population in the state from 6,907,387 in 1940 to an estimated 10,700,000 by July 1951.

The "Survey of the Needs of California in Higher Education," published March 1, 1948, conducted by Monroe E. Deutsch, vice president emeritus, University of California; Aubrey A. Douglass, associate state superintendent of public instruction, and George D. Strayer, Teachers College, Columbia University, recommended that there be established three new state colleges, one each at Sacramento, Los Angeles and Southeast Los Angeles-Orange County, in addition to the seven existing colleges. The report also recom-

mended that the ultimate enrollment of the 10 state colleges be set as follows.

### RECOMMENDATIONS FOR ULTIMATE ENROLLMENT OF 10 STATE COLLEGES

California Polytechnic at San Luis Obispo.....	4080
California Polytechnic at San Dimas.....	1000
Chico.....	2000
Fresno*.....	5000
Humboldt at Arcata.....	1660
San Diego.....	5000
San Francisco*.....	5000
San Jose.....	6000
Los Angeles.....	5000
Sacramento.....	2500
S.E. Los Angeles-Orange.....	3000

\*Replacement of the entire plant has been approved.

The Department of Education of California adopted the foregoing maximum enrollments as the basic fact in preparing master plans for each campus. Complete new sites for Fresno, Sacramento, San Francisco and Southeast Los Angeles-Orange state colleges have been approved and are in the process of being acquired. The state colleges were originally established as normal schools for the training of teachers. Later they were expanded and developed to serve also as regional colleges offering work in the arts and sciences leading to a bachelor's degree. They now offer the master of arts degree. The state colleges are under the governing control of the state board of education and the state director of education.

Under the supervision of the Office of School Planning, a committee on room requirements headed by Dr. Charles Bursch devised a "formula on

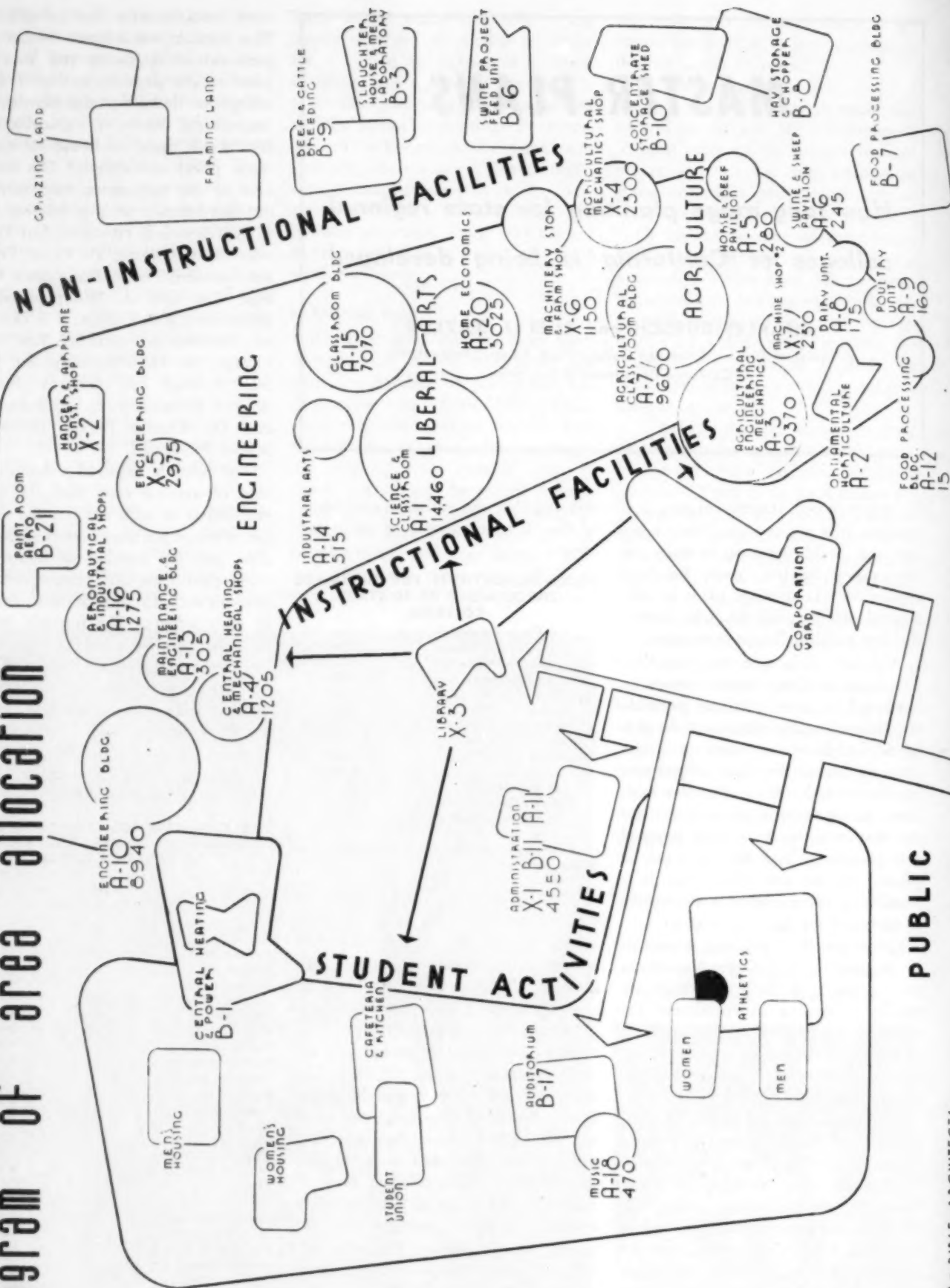
room requirements and standards." This formula was adopted by the department of education and was applied to the probable needs of each college to determine the number of instructional rooms a particular college would need to house its maximum policy enrollment. The members of the committee who worked out this formula were as follows: Dr. J. Paul Leonard, president, San Francisco State College; P. Victor Peterson, president, Long Beach State College; Dr. Guy A. West, president, Sacramento State College; E. S. Thompson, business manager, San Jose State College; Joe H. West, dean, San Jose State College; Dr. John A. Butler, dean of administration, San Francisco, and Dr. Charles Bursch, Office of School Planning.

The formula required a determination of average class size, the peak enrollment in each subject, the number of hours per week rooms are available, and the number of hours per week classrooms and laboratories are used for each 15 units of credit earned in each subject. The formula, based on a 40 hour week, with 70 per cent utilization for general classrooms, and 45 per cent utilization for special rooms (laboratories), was considered to be saturation use. The average class size and the number of hours of class time for 15 units of credit are indicated in the table that follows.

TABLE 1—AVERAGE CLASS SIZE AND NUMBER OF CLASS HOURS FOR 15 UNITS OF CREDIT

	Average Class Size	Class Hours per Week for 15 Units
Art.....	21	35
Bio'ogy lec.....	40	15
Biology lab.....	23	45
Commerce lab.....	24	45
Commerce lec.....	30	15
Education.....	22	15
English.....	25	20
Foreign lang.....	22	15
Homemaking lab....	23	35
Industrial arts.....	23	40
Mathematics.....	25	15
Music lecture.....	25	15
Music act.....	40	45
Music lab.....	16	45
Physical science lec..	40	15
Physical science lab..	23	45
Psychology.....	30	15
Social science.....	40	15
Speech arts lec.....	20	15
Speech arts lab.....	20	30
Engineering lab....	20	30
Health and recreation lec.....	30	15
Health and recreation lab.....	25	30
Special education...	16	30
Journalism.....	20	30
Military science.....	30	24
Police.....	20	25
Agriculture.....	no action	no action
Directed teaching...	no action	no action

# california polytechnic college diagram of area allocation



ALLISON + MIBB ARCHITECTS

The formula for interpreting these figures into instructional spaces is as follows:

$$\frac{\text{Full-time student equivalent} \times \text{Number of class hours per week for 15 credit units in subject}}{\text{Average class size for subject} \times \text{Room saturation hours per week for subject}} = \text{Number of rooms needed for that instructional division}$$

As an illustration, in the biological science department lecture classes would be determined as follows:

$$\frac{315 \text{ (FTE in B.S.)} \times 15 \text{ (class hours per week for 15 units of credit)}}{40 \text{ (average class size in B.S. lectures)} \times 28 \text{ (hours per week of saturation per lecture room)}} = \text{equals 4.2 rooms}$$

Laboratory classes would be determined as follows:

$$\frac{135 \text{ (FTE in B.S.)} \times 45 \text{ (class hours per week for 15 units of credit)}}{23 \text{ (average class size in B.S. lab.)} \times 18 \text{ (hours per week of saturation per lab. room)}} = \text{equals 14.6 (raised to 15 rooms because of fraction)}$$

Full-time student equivalent (F.T.E.) is approximately 89 per cent of the total enrollment. Seventy per cent of a 40 hour week gives 28 available hours per classroom and 18 available hours per laboratory (45 per cent of a 40 hour week).

The formula can be illustrated as follows: Assume there are 4725 student hours per week scheduled in biology lecture courses. Assume also 15 hours per week is the normal student load. The result is:

$$\frac{4725}{\frac{15(a) \times 15(b)}{40(c) \times 28(d)}} = 4.2 \text{ lecture rooms}$$

The foregoing formula can be explained as follows: (a) equals the normal student load, or 15 hours per week of lecture courses; (b) equals the number of class hours per week to earn 15 units of credit; (c) equals the average class size, and (d) hours per week of saturation per lecture room. (See Table 1.)

In addition to the instructional offerings, each college campus was master planned to include the following noninstructional building units:

1. *Library.* Twenty per cent of full-time student equivalent to be accommodated in reading rooms; 25 square feet per user; capacity for 150,000 volumes for the 5000 full-time students; maximum size for largest reading room, 250. It was agreed that for other standards the American Library Association would govern.

2. *Auditorium.* A large auditorium, 1200 capacity, and a little theater not to exceed 500 capacity for each

college, each with a full-rigged stage.

3. *Student activity building.* Student Union, plus cafeteria.

4. *Physical education.* Women's physical education building and pool; men's physical education building and pool.

5. *Administration building.*

6. *Heating and power plant.*

7. *Health service building.*

8. *Visual-aid service area.* Available to the instructional portion of the campus.

9. *Laboratory and demonstration school.* Three hundred fifty elementary students, plus room for observers.

10. *Corporation yard.*

11. *Maintenance building.* This would include garages.

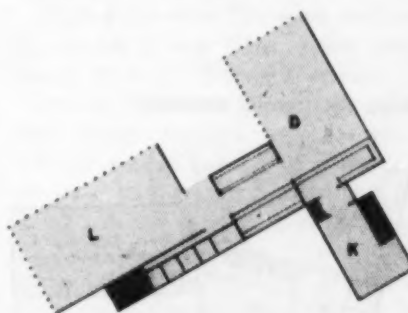
12. *Greenhouse.*

13. *Residence halls.*

14. *Athletic field development.*

The desirable space limitations for each of the so-called noninstructional facilities were fixed as follows:

*Library.* The libraries for each campus were master planned to provide seating spaces for 20 per cent of the full-time student equivalent with 25 square feet per occupant, with bookstack area for 150,000 volumes for 5000 enrollment.



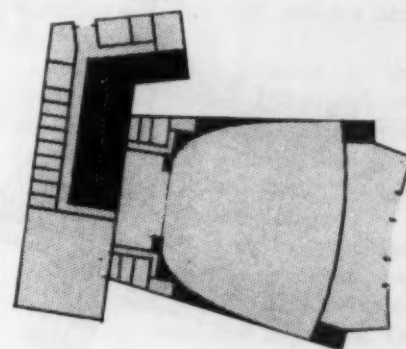
SCHEMATIC PLAN, STUDENT UNION

*Auditorium.* It was agreed that each college should have an auditorium of 1200 maximum capacity with a full grid and stage, and a little theater, capacity 250, with full-rigged stage.

*Student Union.* This building should contain the following facilities: cafeteria, snack bar, bookstore, receiving room, associated student offices, student publications, lounges, social hall, and faculty lounges.

*Physical Education.* Seating capacity of the gymnasium was determined not to exceed 2500. The dimensions for the main gymnasium floor were to be 110 by 120 feet. Two classrooms and special gymnasiums were to be included in each men's gymnasium. A swimming pool for men and one for women were recommended for colleges of 5000. A women's gymnasium also was provided in the master plan. Two of them, at San Francisco and San Jose, are now under construction. Play fields for men's and women's outdoor sports are being provided. Additional land for this purpose has been purchased recently by two of the colleges.

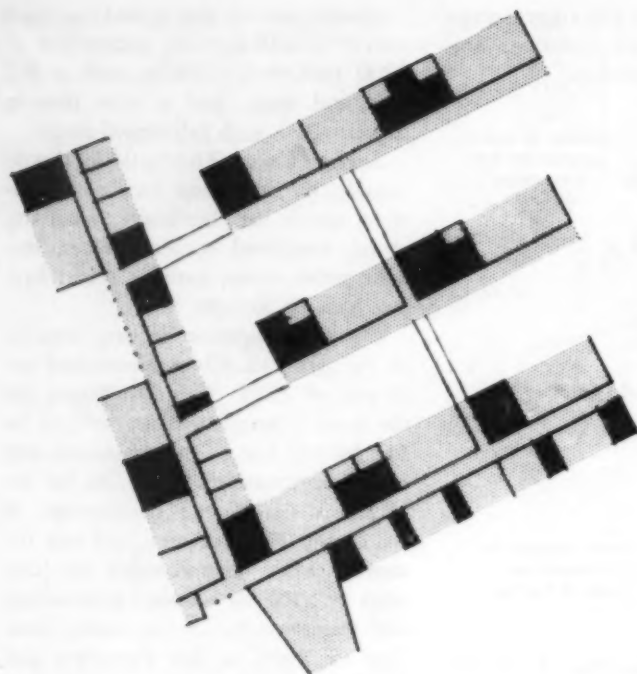
The sizes of the new state college campuses are all based on the fact that a college of 5000 should have



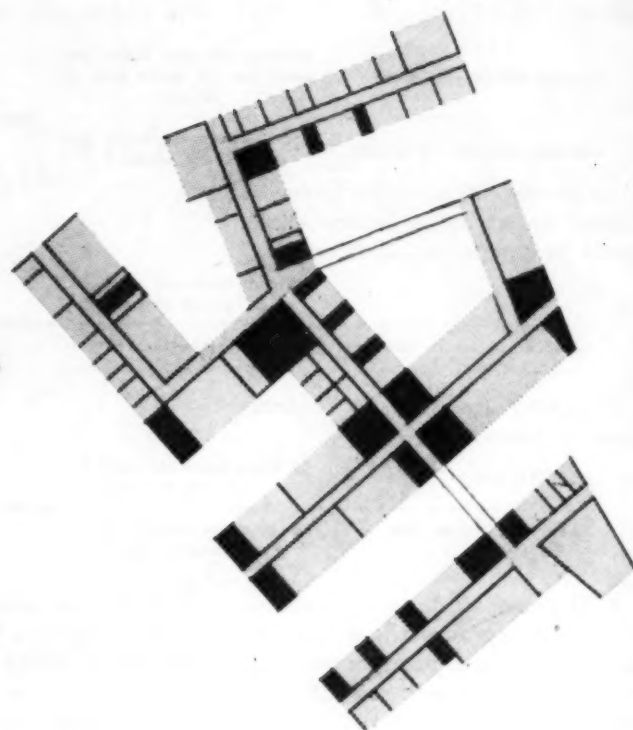
SCHEMATIC PLAN, MUSIC BUILDING

from 150 to 200 acres of usable land, with additional farm land for Fresno State and California State Polytechnic colleges, where agriculture is emphasized.

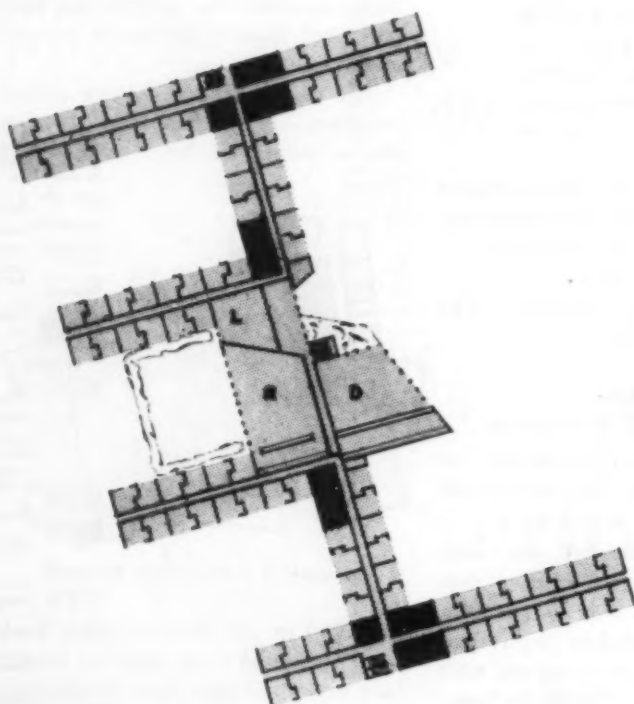
The size of rooms was determined from the student capacity of the room. Laboratories were designed for 24, 28 and 32 student stations, with some laboratories being used temporarily as classrooms where a shortage of classrooms might temporarily exist. If, however, general classrooms are built at the expense of laboratories, it is difficult to turn classrooms into laboratories because of plumbing, wiring and other facilities.



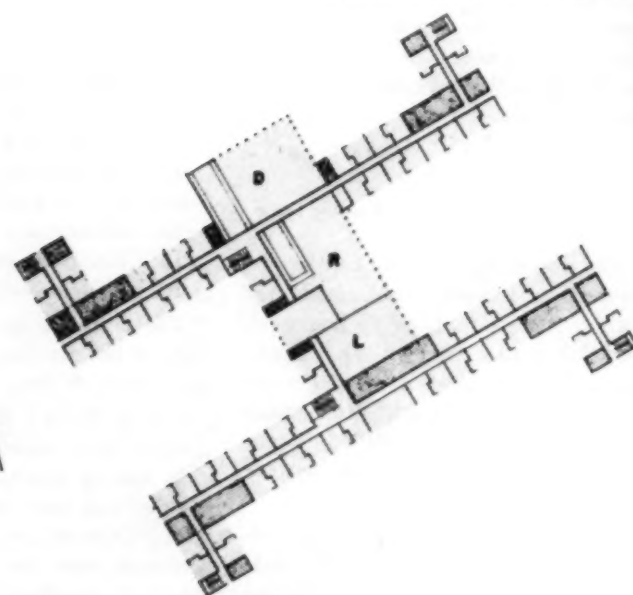
AGRICULTURAL CLASSROOM BUILDING



HOME ECONOMICS BUILDING



WOMEN'S RESIDENCE HALL, UNIT B

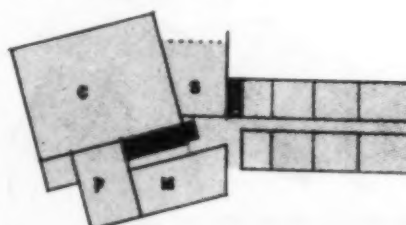


TYPICAL RESIDENCE HALL FOR MEN

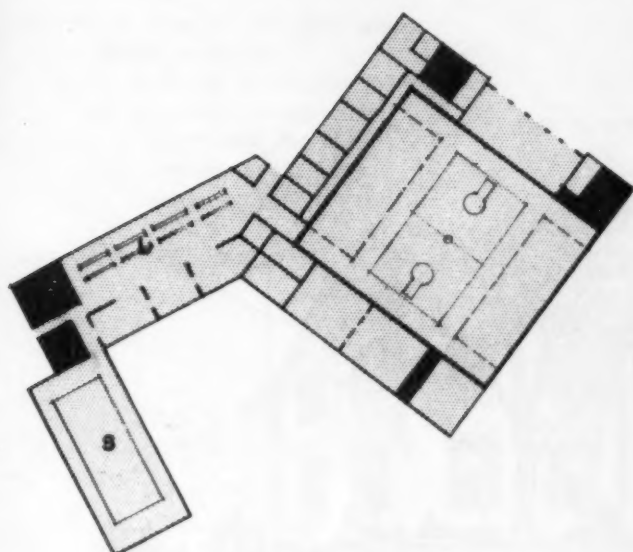
Here are a few basic points that influenced the committee in setting the class sizes and standards used in the formula:

*Art:* Some of the schools use more lecture space and have less activity in art than others. On the other hand, the majority of the schools are emphasizing the laboratory phase of the art work. In order, therefore, to provide sufficient initial laboratories for

FOOD PROCESSING BUILDING



ultimate development in art and to permit those schools so desiring to go into complete laboratory programs, it was thought that all art classes should be figured on the laboratory basis. It is obvious that this provides more art rooms than would be provided if they were figured on a lecture room utilization. Again, some of the schools are using two hours for one of credit and others three hours'



SCHEMATIC PLAN  
OF MEN'S  
GYMNASIUM

credit for laboratory work. The median of 35 was used here. These figures permit art rooms to be used throughout the day by students for individual work.

**Biological Science:** Provision is made in laboratories for three hours for one of credit and for individual study so that sufficient laboratories may be procured. The basic figure of 40 as an average class size for lecture permits schools to have large lecture sections and yet at the same time provides facilities for the smaller upper division lecture classes in specialized science courses.

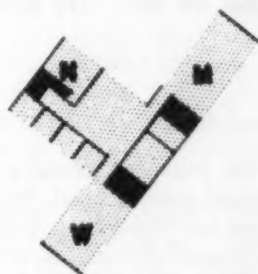
**Commerce:** Laboratories, here again, on a 3 to 1 basis provide for individual practice and business machine work, and the lecture average of 30 makes possible a median figure to be used between the larger beginning courses and the smaller upper division courses.

**English:** The figure of 25 average class size was used again to make a balance between having approximately 30 students in the lower division classes and 20 in the upper division classes. The figure 20 for class hours rather than 15 was used to permit those schools carrying on remedial work or subcollegiate work for which no credit is given to have sufficient rooms to pursue these fields.

**Homemaking:** The figure 35 for class hours was used here again to strike a median between those schools that are using all laboratory work and those that are leaning more heavily to a combination of lecture and laboratory. The figure of 35, it was felt, was generous enough to permit these variations and yet to provide each in-

stitution with sufficient laboratories of a specialized character.

**Music:** Two factors here are important. Music laboratories provide for small group instruction and instruments and for special laboratory work in creative composition and



SCHEMATIC PLAN OF HEALTH CENTER

other types of small group activities. It is fairly generous in that it provides 45 as a figure for class hours for this kind of work. This activity classification is to provide special facilities for band, orchestra and choral work. While the class size is relatively high, the class hours per week is high also to permit sufficient rooms to be supplied.

**Physical Science:** The same reasoning applies in this field as was previously given for biological science.

**Speech:** Provision is made here for small lecture sections, again to provide for a large number of classes of this size and smaller in the upper division speech work, also to care for radio, public speaking, individual practice, and other types of work where more than an hour of work is required for an hour of credit. The

number of hours per week is double the hours of the lecture figure.

**Health and Recreation:** Provision is made here for regular lecture classes in health and health education, hygiene and similar courses. Under the laboratory again the number of hours per week is double the lecture hours so as to provide ample facilities for recreational use and for teaching recreational programs.

#### LAND PURCHASES MADE

In 1946 the California legislature created a Postwar Employment Reserve Fund and a Public Works Board to administer the building program of schools, hospitals, correctional facilities, and office buildings of the several state agencies. Chapter 145 of Statutes of 1946 which created the fund and established the board also required that master plans be developed for each institution. The board was most cooperative, recommending the purchase of additional land in cases where the site was too small to provide for all the proposed buildings. In two instances, at Fresno and San Francisco, the state colleges were moved from the old sites. Fresno was permitted to move to a new 900 acre site northeast of the city, and San Francisco acquired a 93 acre site near the beach.

Additional land adjacent to the campus was likewise purchased for Humboldt State College, California State Polytechnic College, San Jose State College, Chico State College, and San Diego State College.

A site of 327 acres was purchased for the college at Sacramento, and approximately 350 acres are being acquired for the new Southeast Los Angeles-Orange State College.

In applying the formula to the projected enrollments for each college, the following number of rooms were obtained.

#### APPLICATION OF FORMULA TO PROJECT ENROLLMENTS FOR EACH COLLEGE

College	Project Enrollment	Rooms Required
California Polytechnic....	4080	166
Chico.....	2000	84
Fresno.....	5000	190
Humboldt.....	1660	68
San Diego.....	5000	183
San Francisco.....	5000	183
San Jose.....	6000	228
Los Angeles*	5000	190
Sacramento.....	2500	96
Southeast Los Angeles-Orange.....	3000	124

\*Housed on campus of Los Angeles City College.



**D. B. SHOURDS**

Shourds-Mogabgab-Bean, Gulfport, Miss.

## CHAPTER HOUSE *in the southern manner*

WHEN DELTA RHO CHAPTER OF Kappa Kappa Gamma was established at the University of Mississippi in the early part of 1947, one of its first major problems was the development of plans and specifications for a chapter house.

Because many of the existing buildings on campus were traditional in architecture, the new chapter house was designed in the Colonial of the Deep South. Erected in 1948 on that portion of the campus set aside for sorority houses, the building provides living quarters for 20 students, with proper provision for a housemother and quarters for visitors.

Construction is of brick veneer over frame with the exception of the basement area, which is at grade level to the rear; there all walls are of solid brick. The brick work and veneer above grade line are of selected common brick painted white.

Interior partitions are of frame; lathing throughout, of both ceilings and sidewalls, is of expanded metal. The service stairway to the basement is reinforced concrete with anti-slip tread nosing. The rear utility stairway, as

well as the front ornamental stairway to the second story, is wood. Windows throughout are double hung steel, fully weather stripped and with metal screen frames and bronze screen wire. All exterior trim, doors or door casings are of Louisiana red heart cypress. Interior woodwork is of selected Ponderosa pine.

Flooring in general is tongue-and-groove white oak, with mosaic tile floors in all bath and shower rooms, and with ceramic tile wainscoting. The first floor powder room, the chapter room, the recreation room, and the main basement hall have finished floors of asphalt tile over concrete. Other basement service rooms and halls are floored with concrete.

### COLONIAL TRIM

Walls and ceilings throughout are three-coat gypsum prepared plaster over metal lath, with acoustical plaster on ceilings of kitchen and pantry. Applied plaster ornament usually found in southern Colonial work was used in the main reception hall, dining room, living room, and library. The fireplace in the living room, as well as

the one in the library, has a hearth and facing of black and gold marble with Colonial metal pieces; the one in the recreation room is of flat section Crab Orchard stone.

In the recreation room the sidewalls are of scored plywood, which, when painted, makes an effective wall treatment as well as one that is not easily damaged.

The heat is low pressure steam with built-in radiators of the convector type; steam is furnished from the university's central heating plant. A motor driven electric fan moves air and odors out of the kitchen and pantry. Hot water is supplied by the central plant.

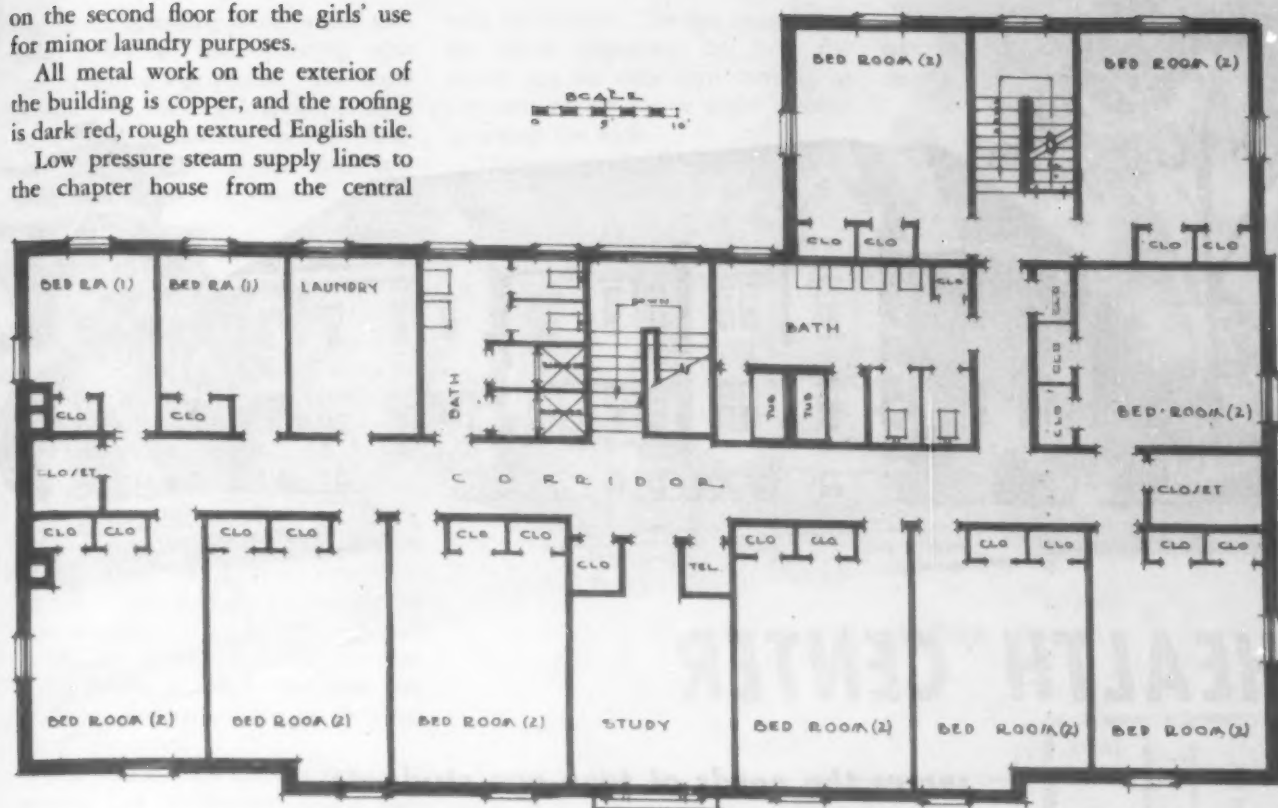
Electrical wiring in the masonry work is in conduits, and no wires less than No. 12 were used any place in the building. A buzzer system is employed in certain rooms and corridors and from dining room to pantry.

A dumb-waiter operates from the bulk food storage room in the basement to the pantry and kitchen. Cooking ranges and equipment are electric, and there is an electric dishwasher. In addition to a well equipped laundry room in the basement, there is a room

on the second floor for the girls' use for minor laundry purposes.

All metal work on the exterior of the building is copper, and the roofing is dark red, rough textured English tile.

Low pressure steam supply lines to the chapter house from the central



system, hot and cold water supply lines to the building, and the electric service have proper cutoffs at the pump house to the rear of the lot where the condensation is pumped back into the central heating system. All of these utility services can be cut off when the house is not in use to prevent unnecessary accidental damage.

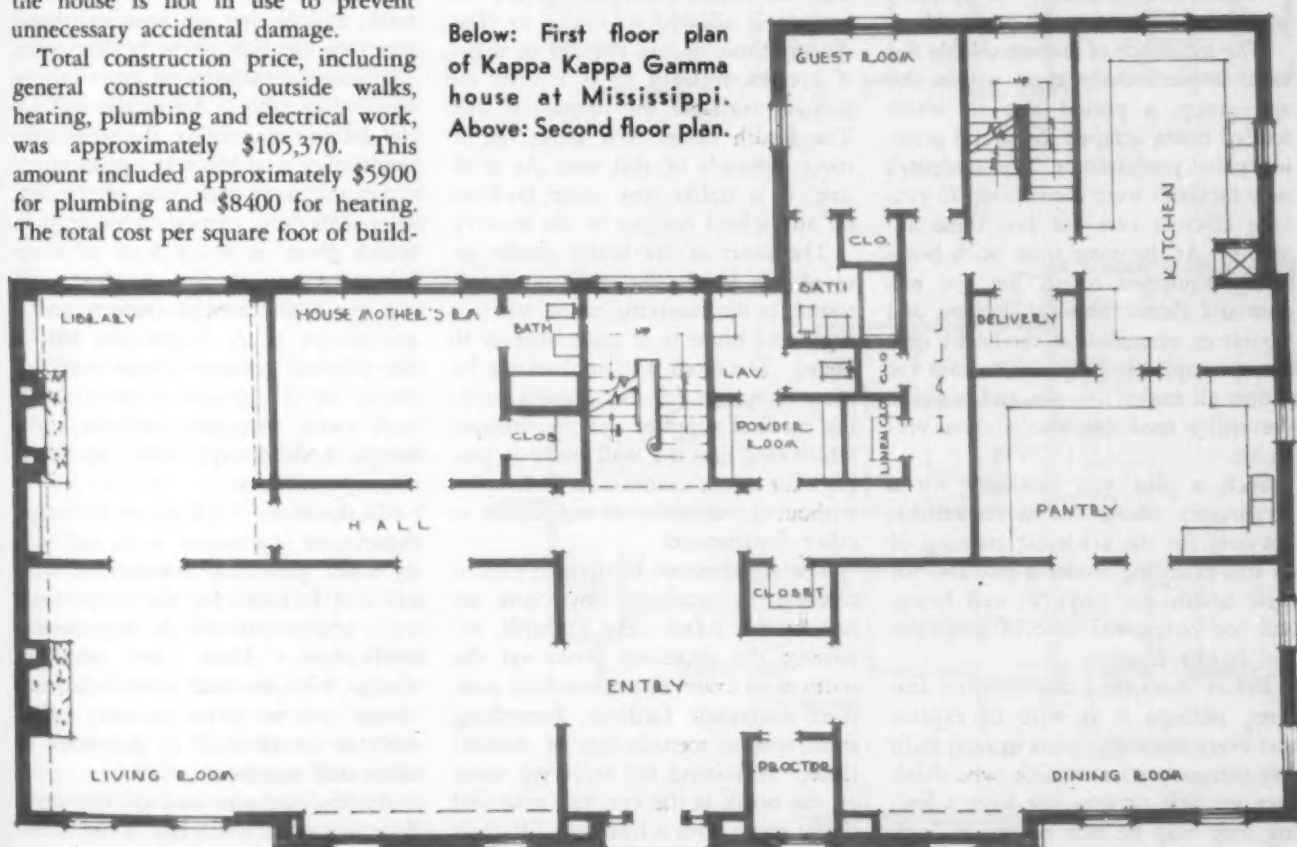
Total construction price, including general construction, outside walks, heating, plumbing and electrical work, was approximately \$105,370. This amount included approximately \$5900 for plumbing and \$8400 for heating. The total cost per square foot of build-

ing area, including all floors, was \$10.03, which included the rear terrace, which is paved with quarry tile over a concrete base, as is the floor of the front entrance.

Because the land is leased from the university, it was not included in the

cost figures, nor do the figures include interior decoration, furnishings and such special features as laundry equipment, kitchen ranges, dishwashers, electrical fixtures, other mechanical equipment, and the best grade Colonial interior trim hardware.

Below: First floor plan of Kappa Kappa Gamma house at Mississippi. Above: Second floor plan.





# HEALTH CENTER

*serves the needs of teen-age students*

THE \$300,000 HEALTH CENTER WHICH was completed at Culver Military Academy, Culver, Ind., in time for the opening of last summer session is a hospital built to serve the needs of a particular institution — a boarding school for boys 14 to 18 years old.

The incidence of communicable diseases is particularly great within this age group, a period also in which scuffed noses, scraped shins, and growing pains predominate. The academy's new facilities were constructed to provide efficient care for just these ailments. At the same time, with beautifully equipped rooms for eye, ear, nose and throat, physical therapy, and laboratory examination, the health center is completely prepared to care for almost all major illnesses and injuries. Preventive medicine also is given emphasis.

Such a plan was necessary for a preparatory school that is responsible not only for the academic training of its 650 boarding students but also for their health and physical well being, and for outpatient care of employees and faculty families.

Before describing the building features, perhaps it is wise to explain that every morning cadets in each military company who are sick, who think they are sick, or who just have a feeling they may be sick report to "sick

**A. G. HUGHES**  
Director of Public Relations  
Culver Military Academy

call." The academy health service staff investigates carefully before the student is allowed to return to class. At any time, during the day or night, if a cadet feels ill or is injured the staff is available for immediate call. The health center was conceived to meet demands of this sort. As a result, it is unlike any other building on any school campus in the country.

The heart of the health center, located just inside the main north entrance, is the receiving room, where a registered nurse is in attendance at all hours. The room is more than one for mere reception, for the cabinets stocking medical supplies and the dressing tables that line the wall make it possible for minor ailments to be handled without the necessity of assignment to other departments.

The supplies and equipment needed oftenest by academy physicians are nearest this room. For example, adjoining the receiving room on the south is an examining room with complete diagnostic facilities. Everything from eyes to toenails can be checked there. Adjoining the receiving room on the north is the eye, ear, nose and throat room with a hydraulic-lift chair

for setting nasal fractures and treating sinuses. There are utility outlets every 4 feet; stainless metal supply shelves and various tables and cabinets are provided.

The receiving room, the examining room, and the eye, ear, nose and throat room are the hub of the health center. In these the majority of cases can be handled speedily. Across the hall are the doctor's main office, the staff secretary's office, and the waiting room.

On the same west side of the first floor hall is a clinical laboratory in which there is a 12 foot table-top cabinet with built-in sink, compressed air, gas and electrical outlets, and a microscope table. Across the hall is the physical therapy department. Included in its equipment are contrast bath units, infra-red and ultraviolet lamps, hydrotherapy tubs, and diathermy machines.

To the south of the physical therapy department is a nurses' work and utility room providing refrigerated storage and facilities for the preparation and administration of hypodermic medications. Here, for example, allergy, hormone and other scheduled "shots" can be given to many cadets with no interference to the work of other staff members.

At the opposite end of the main floor, across the south end of the build-

ing, is the operating room, which provides a fracture and operating table and operating equipment. The room is equipped with explosionproof light switches, a conductive floor to eliminate static sparks, stainless metal surgical furniture, and recessed instrument cabinets.

Adjoining this room is a sterilizing department with an autoclave, utensil and instrument sterilizers, and steel storage cabinets.

Off the east side of the sterilizer room are the x-ray department and darkroom. The walls and doors are of barium plaster or contain sheet lead to confine the x-rays. The heavy concrete floor with its rubber tile covering protects those below and eliminates grounding of the registered x-ray technician. Lightproof shades provide for fluoroscopy.

The first floor also has a detention room, where students who may not need hospitalization can be detained for a few hours.

The second floor consists mainly of private and semiprivate rooms with baths. It is "L" shaped with the nurses' station at the base of the "L."

As on the first floor and in the semibasement, there are centrally located recessed storage cabinets in the corridor with 120 feet of shelves for bedding, dressings and supplies.

A unique feature of the second floor layout is a section that can be closed off to allow for an isolation unit with its own dishwashing and steam sterilizing equipment so that utensils are returned to the kitchen only after they have been sterilized. A similar arrangement off the semibasement ward provides isolation facilities there. For boys in an age group highly susceptible to communicable diseases precautions of this sort are a functional part of the building.

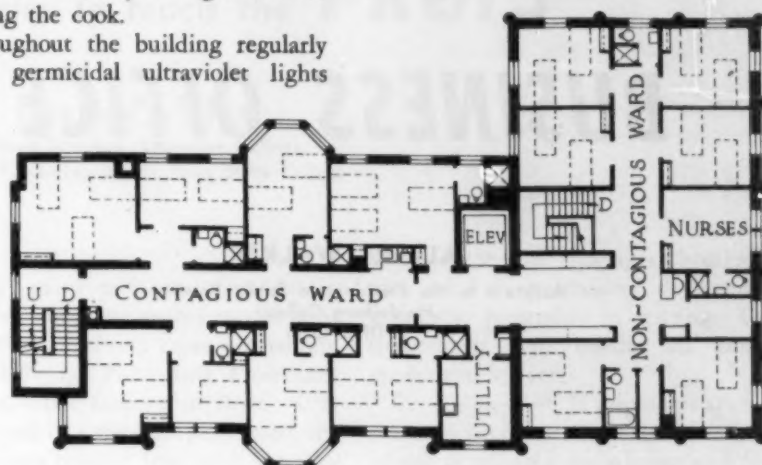
Wide windows spaced a few inches apart around the upper half of the semibasement ward provide plenty of light, and cream-brick tile walls, red tile floors, and many fluorescent lights combine to produce a cheery atmosphere.

Besides ward facilities in the semibasement to be used when the load is above normal, the unit also contains quarters for a nurse, a dishwashing and sterilizing room off the ward, living suites for maintenance employes, a kitchen with all modern equipment, drug and bulk storage rooms, closets, a mechanical service room, the janitor's room, and a nurses' dining room

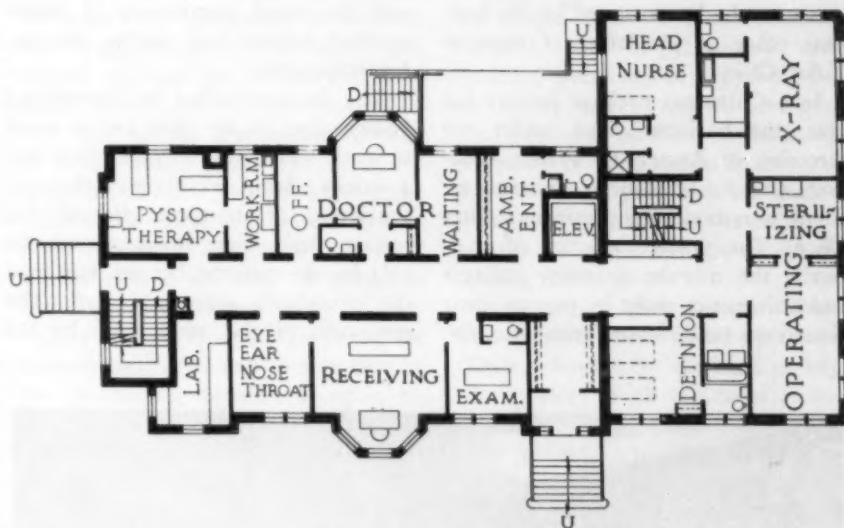
with kitchenette. The last named may not sound important, but here the nurses can do their own cooking at any time of the day or night without annoying the cook.

Throughout the building regularly placed germicidal ultraviolet lights

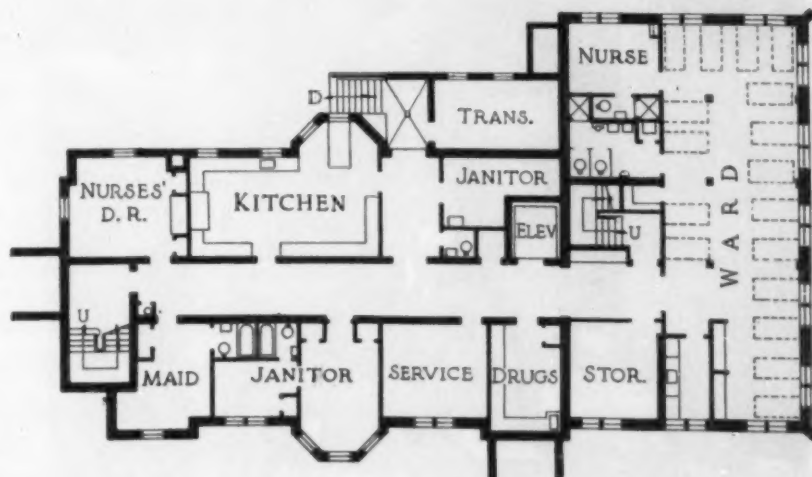
help prevent cross infection. Intercommunicating telephones and a call system help tie together all facilities.



SECOND FLOOR PLAN



FIRST FLOOR PLAN



BASEMENT FLOOR PLAN

0 5 10 20 30 40  
Scale in feet

**Heidelberg College remodels its**

# **BUSINESS OFFICE**

**ALBERT WALKER**

Assistant to the President in Public Relations  
Heidelberg College  
Tiffin, Ohio

HOW TO CONVERT WHAT MIGHT HAVE been Abraham Lincoln's old law offices to what could be the outer offices of a thriving industrial firm, all for \$2000, was recently demonstrated by the business office of Heidelberg College at Tiffin, Ohio.

In a Christmas package project last year, the business office, under the direction of Russell G. Frantz, treasurer, and K. W. Goetz, assistant, set about to remodel the president's outer office. The project was an effort to rectify the mistake so many colleges and universities make by putting their classrooms and laboratories in new

buildings and keeping the original structures for their administrative offices. Consequently, the first impressions of students and their parents, and the casual impressions of distinguished visitors and guests, are unfavorable ones.

The business office of Heidelberg College had 26 by 19.6 feet of space to work with. The only partition was a stubby, dark, oak counter that ran the length of the room. Behind this railing, desks were lined up side by side for the registrar, her assistant, and the president's secretarial staff. The remainder of the office, 14.6 by 9.6

feet, was pretty much wasted space with an imitation marble-on-metal fireplace, a work table, some chairs, and a coat and hat rack. Walls and woodwork were finished in ivory-tan wallpaper and dark oak. The entire area was lighted by a single 200 watt bulb.

Three weeks later and at a cost of \$2000, the rejuvenated offices had the dressed-up appearance of a modern, downtown suite of offices. The treasurer and registrar had their own offices, partitioned off by structural corrugated glass and solid birch walls and doors.

The treasurer's office received extra treatment with a dropped ceiling, acoustic tile, and recessed fluorescent lighting. A green twist rug covered the floor. A combination built-in bookcase and radiator enclosure against the window sill completed the modern appearance of the room. A 4 foot lowered fluorescent light fixture was installed in each of the two offices.

The former waste space of the outer office was converted for use by the president's secretarial force. A section of the old counter and desk, completely covered by birch plywood with a rubbed shellac finish and a coat of wax, was used for the front assembly. The side was enclosed by a rail of custom built birch plywood. The front desk and counter were topped off with linoleum.

For light, the business office had installed the latest fluorescent lighting with fine-line fixtures and eight 8 foot tubes. The old plaster wall was covered by more birch plywood. To make part of a wall flush with the rest, a narrow closet was added to substitute for the old-style coat racks used by the office personnel. Ivory-tan wallpaper was left on the wall because it matched the birch plywood walls.

All this face lifting took three weeks, two of them during the college's Christmas vacation. Two thousand dollars was a small price to pay for increased efficiency of the office personnel and favorable impressions received by visitors, some of whom may become large donors to the college's endowment or scholarship funds.



The front office is transformed by walls of solid birch and structural corrugated glass. The office of the president is in the rear.

# The **P.A.** tries to teach the **PROFS**

**HARLAN S. KIRK**

Business Manager, Lawrence College  
Former Purchasing Agent, Iowa State College

THE AVERAGE COLLEGE PROFESSOR doesn't intend to run counter to the rules and regulations of his institution when it comes to buying. He needs something and takes the course of least resistance. If a store will let him have the duck he wants to use in his laboratory and will charge it to the college—that is expediency to him. He gets it and worries (if ever) about it later. Anything that suggests of red tape is abhorrent to him. And so we as business officers interested in seeing the funds of our institution stretch as far as possible must have patience. We must try to educate the professor in necessary management and buying procedures, even though he may have a Ph.D.

To get across to these persons, our colleagues and friends, the plan that we want followed is not always simple. By use of written memorandums or telephone, by trying not to be too serious and by bringing in some kidding, at least with a few malefactors, we point out where we'd like to have closer adherence to the regulations. We beat around the bush, not wanting to point too plainly to the supposedly well known rules and regulations. The idea is that we want to enforce these proper procedures without losing their cooperation and respect.

We have studied how best to get the cooperation of the professors and other departmental people (it's really not just the professors—it's just as likely to be the girl in his office). We have listened to and read how other colleges handle this problem. Some have comprehensive operating manuals, which frequently get out of date or the supply becomes exhausted. At other institutions, the purchasing agent follows the plan of meeting with departmental staffs and explaining to them his problems and the whys and wherefores of the purchasing procedures.

Acting upon the latter plan, I found that by handing out to those present an outline of procedures and talking

from it, many problems came out in the open and were settled to the satisfaction of all. From these discussions, the following "Purchasing Procedures at Iowa State College in Brief" were developed. As the idea progressed, the procedures became less brief, but they do give a written plan to follow.

1. *Requisitions.* Send requisitions to the purchasing department with adequate description of your requirements for materials, equipment or services. Give suggested sources, estimated cost, correct account to be charged, and signature of head of department.

2. *Quotations.* Purchasing department will obtain price, delivery or any other information you need and make contacts for you with suppliers. Quotations requested by you will be forwarded to you for your consideration and recommendations.

3. *Purchase Orders.* They will be written and forwarded to suppliers by the purchasing department upon receipt of properly approved requisitions. Requisitions for equipment to be purchased from college or experiment station equipment funds should include a statement on the reverse side setting forth the need and must be approved by the dean or director and the business manager (after correct price quotations have been obtained by the purchasing department).

4. *Check on Purchasing.* Check over your green copy of purchase order to make sure that the purchasing department has ordered what you want.

5. *Invoices.* They should be approved and signed by the department head promptly after receipt of the merchandise, so that the cash discount may be earned and taken. Check to make sure that the proper account is charged. Check carefully and report any errors in prices, terms, extensions or totals. Phone X317 if you have questions related to invoices, freight bills, container returns, etc.

6. *Returns and Claims.* When return shipments are to be made or

when there are shortages, breakage, etc., refer to purchasing department promptly, preferably in writing. The department will handle all correspondence for you.

7. *Follow-Ups.* If shipments are not received promptly, or when promised, advise purchasing department and follow-up will be sent out (by wire if urgent).

8. *Campus Stores.* Before requisitioning supplies, check to see if they are carried in stock in the bookstore, central stores or chemistry stores. Quantity purchases of supplies by the storerooms effect over-all savings; if your needs can be filled by the campus stores, do not requisition from outside sources. Stores purchases are made on intramural requisitions, forwarded direct to the stores and not to the purchasing department.

9. *Contract and General Orders.* Contract orders are issued by the purchasing department on basis of negotiated prices. Such purchases as automobile servicing, petroleum products, coal, off-campus utilities, garage rental, office machine maintenance, certain chemicals and gases, etc., are made on a contract basis for the entire college. Where departments are large users of these items, contract orders may be placed by the purchasing department on a single requisition, and no further requisitions are required for the contract period. General orders are written allowing departments to buy from named suppliers a specified total value of supply items needed from day to day, such as fresh fruits and vegetables in the dining halls, a limited number of small supply items, and repair parts (not carried in campus stores), such as farm machine parts.

10. *Emergency Orders.* Call Purchasing X283 and order will be handled immediately by phone or wire. If immediate pickup by department is required a purchase order number will be given.

11. *Repair Orders and "Shopping Permits."* When service is required to

repair equipment or when equipment is to be shipped away for repairs, call the purchasing department for an order number. Note number on shipment or give it to repairman and also show it on confirming requisition. For limited quantities of supply items (not available from campus stores) that a department desires to pick out, a "shopping permit" (order number) will be given by the purchasing department.

12. *Confirming Requisitions.* Requisitions showing number assigned should be issued immediately following the placing of orders on emergency, repair or "shopping permit" basis. Unauthorized confirming requisitions (orders given direct to a supplier by someone in the consuming department) will not be accepted without an explanation on the reverse side of the requisition. By rule of the board of education, responsibility for all purchases is assigned to the purchasing agent. Therefore, contact the purchasing department in advance and make no commitments for the college.

#### INSTRUCTIONS ON REQUISITION

A new purchase requisition had been a *must* for some time—one that would allow spaces for pertinent information to be filled in by the ordering department and the purchasing department. Advantage was taken of the reverse side of the requisition to print instructions to the ordering department and also to state plainly the purchasing regulations of the college.

Samples of the new requisition and copies of the purchasing procedures were mailed to each dean and department head with the information that more copies of the procedures were available for the asking and with the suggestion that they be given to all new staff members as they join the department. The offer also was made to have the purchasing agent meet with staff members and explain the purchasing function as it is related to them.

Supposedly well known regulations relative to purchasing were not so well known, it was found. Many errors and mishandling of orders were discovered to have been caused by ignorance and not knowing that there are prescribed rules to follow. Therefore, by getting this purchasing information into the hands of those responsible for departmental requirements, some misunderstandings between the purchasing agent and the professors and his assistants have been avoided.

# EQUAL EDUCATIONAL

## T. E. BLACKWELL

Treasurer, Washington University  
St. Louis

GREGORY SWANSON, A LAWYER FROM Danville, Va., on July 14 of this year filed an application for admission to the school of law of the University of Virginia to do graduate work. Barron F. Black, the university rector, in rejecting his application, explained that "the applicant is a colored man" and "the constitution and laws of the state of Virginia provide that white and colored shall not be taught in the same schools." In September, a three-judge federal court,<sup>1</sup> sitting in Charlottesville, Va., after hearing arguments in the case, ordered the university to admit qualified students regardless of their race or color.

#### VICTORY FOR NEGROES

This decision is but the most recent of a series of legal victories in the long struggle of the members of the Negro race in America to acquire that equality of opportunity granted to them by the adoption of the 14th Amendment to the federal Constitution in 1868. The "equal protection of the laws" thus guaranteed all citizens was later interpreted to mean "a pledge of the protection of equal laws."<sup>2</sup> In 1899 the Supreme Court of the United States<sup>3</sup> upheld the segregation of the two races for the purpose of education and thus gave formal enunciation to the "separate but equal" doctrine, *i.e.* the rule that if a state wishes to maintain separate educational facilities for the two races it may do so only if the facilities are equal. Mr. Justice Harland, in upholding the segregation laws of Virginia, said:

"The education of the people in schools maintained by state taxation is a matter belonging to the respective

states and any interference on the part of the federal authority with the management of such schools cannot be justified except in the case of a clear and unmistakable disregard of rights secured by the supreme law of the land."

Fourteen southern states still have legislative or constitutional provisions requiring the segregation of the races in publicly supported schools and colleges. When these laws have been challenged in the courts, the states involved have insisted that they were providing equal, though separate, educational facilities for Negroes. However, few southern states have the financial resources to maintain even one complete program of higher education at a level required by modern professional standards. In 1948 a group of southern states entered into a formal compact relating to the development and maintenance of regional educational services. This compact may mark an important milestone in the educational history of the area.

#### COLOR BARS HER

In February of 1949 Esther McCready was refused admission to the school of nursing of the University of Maryland solely on the grounds that she was not a member of the white race. Acting under the provisions of the 1948 regional compact, the state of Maryland offered her a course of nursing at Meharry Medical College in Nashville, Tenn., at a total over-all cost to her, including living and traveling expenses, that would not exceed the cost of attending the nursing school at the University of Maryland.

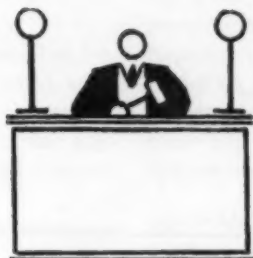
Miss McCready declined the offer and brought suit against the officials of the University of Maryland to compel them to admit her. Uncontradicted testimony, ample in detail, was offered to show that the educational facilities

<sup>1</sup>The opinion of the court and the case citation were not in print at the time of writing.

<sup>2</sup>*Yick Wo v. Hopkins*, 118 U.S. 356.

<sup>3</sup>*Cummings v. Richmond County Board of Education*, 175 U.S. 528.

# OPPORTUNITIES FOR ALL



and living conditions at Meharry College were not only equal to but superior to those at the University of Maryland. University officials pointed out in their pleadings that this offer included every advantage except the one she demanded, *i.e.* education in a state institution within the state of her residence. The court,<sup>4</sup> in ordering the University of Maryland to admit her, quoted at some length a decision of the U.S. Supreme Court<sup>5</sup> handed down in December of 1938 ordering the University of Missouri to admit Lloyd Gaines to its school of law.

## FIRST MAJOR CASE

This Missouri case was the first major battle against the color line in higher education. Mr. Gaines had been offered free tuition in the law school of any of the adjacent states north of the Mason and Dixon's line. He declined and brought suit to compel S. W. Canada, registrar of the University of Missouri, to admit him. Chief Justice Hughes, in granting the writ of mandamus, had this to say:

"The basic consideration is not as to what sort of opportunities other states provide, or whether they are as good as those in Missouri, but as to what opportunities Missouri itself furnishes to white students and denies to Negroes solely upon the ground of color. The admissibility of laws separating the races in the enjoyment of privileges afforded by the state rests wholly upon the equality of the privileges which the law gives to the separate groups within the state. The white resident is afforded legal education within the state, the Negro resident, having the same qualifications, is refused it there and must go outside

the state to obtain it. This is a denial of the equality of legal right to the enjoyment of the privilege."

In January of 1946 Ada Louise Sipuel applied for admission to the school of law of the University of Oklahoma, the only institution supported by the taxpayers of the state of Oklahoma offering a legal education. She was denied admission solely on the grounds of her race. The U.S. Supreme Court, on Jan. 12, 1948,<sup>6</sup> issued this short, brusque order:

"The state must provide for her in conformity with the equal protection clause of the 14th Amendment and provide it as soon as it does for applicants of any other group."

In June of 1950 the U.S. Supreme Court gave us two decisions of vital significance in this area of equal educational opportunities for all citizens. In the University of Texas case<sup>7</sup> the court laid down a yardstick of equality so costly of attainment that few southern states will find it possible to comply with it as the price of segregation.

## SEEKS LEGAL REDRESS

Heman M. Sweatt applied for admission to the school of law of the University of Texas in February of 1946. When refused, he filed suit for a writ of mandamus. The state of Texas, recognizing the significance of the Sipuel case, authorized the immediate establishment of a separate law school for Negroes. When it was opened in 1947, Mr. Sweatt declined to apply for admission and continued to seek legal redress. Chief Justice Vinson, in ordering his admission to the school of his choice, laid down this standard of equality of opportunity:

"We cannot find substantial equality

in the educational opportunities offered white and Negro law students by the state. In terms of number of faculty, variety of courses and opportunity for specialization, size of student body, scope of the library, availability of law review and similar activities, the University of Texas Law School is superior. What is more important, the University of Texas Law School possesses, to a far greater degree, those qualities which are incapable of objective measurement but which make for greatness in a law school. Such qualities, to name but a few, include the reputation of the faculty, experience of the administrators, position and influence of the alumni, standing in the community, traditions and prestige. It is difficult to believe that one who had a free choice between these two law schools would consider the question close."

## AMENDS STATUTE

The University of Oklahoma case,<sup>8</sup> also decided last June by the U.S. Supreme Court, has taken us a long distance down the road to full equality of the races. C. W. McLaurin applied for admission to the University of Oklahoma as a candidate for a doctorate in education. University authorities were compelled to refuse him admission in view of the Oklahoma statute making it a misdemeanor to maintain a school at which both white and Negroes were enrolled. Following the Sipuel case, the Oklahoma legislature amended this statute to permit the admission of Negroes if similar work was not available in the schools for Negroes within the state. However, the statute also stipulated that the program of instruction in such cases "shall be given . . . upon a segregated basis."

Acting under the provisions of this statutory requirement, Mr. McLaurin was admitted, but he was compelled to accept a seat in a row in the classroom specified for Negro students, at a designated table in the library, and at a special table in the cafeteria. In the unanimous opinion of the court, written by Chief Justice Vinson, the high court swept aside these indicia of segregation and ruled that Mr. McLaurin, "having been admitted to a state supported graduate school, must receive the same treatment at the hands of the state as students of other races."

<sup>4</sup>McCready v. Byrd, 73 A 2d. 8 (April 14, 1950).

<sup>5</sup>State of Missouri v. Canada, 305 U.S. 337 (Dec. 12, 1938).

<sup>6</sup>Sipuel v. Board of Regents of the U. of Okla., 332 U.S. 631.

<sup>7</sup>Sweatt v. Painter, 94 U.S. Sup. Ct. Rep. 783 (June 5, 1950).

<sup>8</sup>McLaurin v. Oklahoma State Regents for Higher Education, 94 U.S. Sup. Ct. Reports 787 (June 5, 1950).

# Determining costs on SPONSORED RESEARCH

C. C. DeLONG

Bursar, University of Illinois

FROM CONVERSATIONS WITH MANY business officers, it is apparent that there is a considerable lack of understanding of the principles currently used for the determination of indirect costs on government sponsored research, developed by institutional business officers and accepted by the armed services and other governmental agencies. For this reason there is offered a brief explanation of how these principles were formulated and now are applied.

After the close of World War II, it became apparent that the federal government was to rely to a considerable extent upon educational institutions for postwar research. Although during the war payments by the government for research, as a rule, substantially covered all costs, both direct and indirect, there were a few cases where certain institutions with large programs suffered severe losses because of inadequate allowances for indirect costs. During this period, the methods of calculating the reimbursement for costs were often arbitrary or complex, and varied with governmental agencies.

After the war, as the programs grew, it became increasingly obvious that unless all such costs were recognized and recovered, funds received and appropriated for instruction or other institutional purposes of necessity would be diverted to support research sponsored by either public or private agencies. Such result often would be criticized from within the institution by those who failed to benefit directly from the research program and possibly from external sources contributing income.

Recognizing these problems, a group of business officers first met in July 1946<sup>1</sup> to formulate a set of principles which easily could be applied in order to determine total costs, direct and

<sup>1</sup>Upon the initiative of R. B. Stewart of Purdue University, who acted as chairman of the group. G. A. Mills of Princeton University acted as secretary, and his editorial services were invaluable in preparing the material for presentation to the government.

## EXAMPLE OF CALCULATION OF INDIRECT COST RATE

(Using Accounting and Reporting Procedures Advocated by National Committee on Standard Reports for Institutions of Higher Education)

	SALARIES & WAGES	EXPENSE	EQUIPMENT	TOTAL
<b>EDUCATIONAL AND GENERAL</b>				
<b>Direct Expense:</b>				
Instruction.....	\$1,450,000	\$100,000	\$ 30,000	\$1,580,000
Research.....	1,000,000	400,000	150,000	1,550,000
Organized Activities Relating to Instruction and Research.....	100,000	200,000	10,000	310,000
<b>TOTAL.....</b>	<b>\$2,550,000</b>	<b>\$700,000</b>	<b>\$190,000</b>	<b>\$3,440,000</b>
<b>Indirect Expense:</b>				
<b>General Administration and General Expense:</b>				
General Expense.....	\$ 200,000	\$140,000	\$ 5,000	\$ 345,000
Group Insurance and Annuities....	20,000	90,000		110,000
Library Operation**.....	30,000**	3,000**	40,000	73,000
Operation and Maintenance of Physical Plant.....	220,000	200,000	15,000	435,000
<b>TOTAL*.....</b>	<b>\$ 470,000</b>	<b>\$433,000</b>	<b>\$ 60,000</b>	<b>\$ 963,000</b>
<b>ACCUMULATION OF INDIRECT EXPENSES</b>				
Educational and General Salaries and Wages*.....				\$ 470,000
Educational and General Expense*.....				433,000
Use of Library Books (400,000 volumes @ 4c per volume).....				16,000
Use of Buildings (\$6,000,000 @ 2 per cent).....				120,000
Use of Equipment (excluding library books) \$2,000,000 @ 6½ per cent....				133,200
<b>TOTAL INDIRECT EXPENSE.....</b>				<b>\$1,172,200</b>
<b>INDIRECT COST RATE</b>				
Total Indirect Expense.....				\$1,172,200
Direct Salaries & Wages (for instruction and research).....				\$2,550,000
				= 45.9 per cent

\*Net after proper portions have been allocated to all auxiliary enterprises and other noneducational functions, and educational and general functions not related directly to instruction and research.

\*\*Total library expense prorated on population basis, between teaching and research staff, and total population using library facilities.

indirect, accruing on any research program supported financially by an agency outside the institution and which would be reasonably fair and equitable to all parties.

### COMMITTEE GOES TO WASHINGTON

A series of meetings was held in Chicago composed of the institutional group, and in Washington by a committee representing the group, meeting with representatives of the army, navy and air forces. The latter meetings were carried out at a high level, with the late James Forrestal, then secretary of the navy, and other high

ranking officers in attendance. After considerable negotiation, the principles were accepted by the armed services with only minor variations from the form recommended by the institutional officers.

These principles were never published as such, but were mimeographed and distributed under the title: "Principles for Determination of Costs Under Government Research and Development Contracts With Educational Institutions, War Department-Navy Department, August 1947." Portions were incorporated into Section XV, Contract Cost Principles, Armed Services

Procurement Regulations,<sup>2</sup> (part 3 of which is usually designated as the "Blue Book"), and the Contractors' Manual issued by the Office of Naval Research, March 1950, Section 10.01 through 10.04.

The use of such principles has become widespread by the armed services, upon the request of the educational institutions. Some other governmental agencies also have accepted them.

The Inter-Association Committee of Business Officers has been negotiating with the Atomic Energy Commission and, at this writing, the principles have been accepted on a trial basis by A.E.C. for use on the so-called "programmatic" type of contract. There still is much to be accomplished, however, with those agencies, such as the Public Health Service, which look upon their allocations as "grants-in-aid" supporting existing programs and hence are willing to give only a small fixed percentage (usually 8 per cent) of total to cover indirect costs. Finally, a few government bureaus that sponsor some research still refuse to recognize that such a thing as an indirect cost exists.

In order to accomplish some standardization of contractual terms with educational institutions, sometime ago there was set up within the government the "interdepartmental committee on scientific research and development." This committee consists of representatives of all governmental agencies that have anything to do with research and development work.

Recent studies made by this committee hold real promise for uniformity in connection with vouchering, auditing and computation of overhead

rates. At the date of this writing (October 1950) no formal reports have been released, but it is understood that the studies on vouchering and auditing have been completed and recommendations for their implementation have been made.

Action on overhead is expected in the immediate future. The adoption of these reports would result in a great improvement in these relationships.

#### SUMMARY OF PRINCIPLES

The total cost of a government research and/or development contract with an educational institution is the sum of (1) all direct costs incurred by the contractor incident to and necessary for the performance of the contract and properly chargeable thereto, and (2) the indirect expense allocable to the performance of the contract. Such items of cost and expense are normally classified in logical order in the following outlines:

**Direct Costs:** direct salaries and wages; vacation and sick leave of direct employees; materials and supplies; shipping charges; communication toll charges; maintenance and upkeep of government-owned and rental equipment; purchase and rental of equipment; self-insurance; other direct costs; sundry specific contract expense.

**Indirect Expense:** general administration and general expense; group insurance; annuity premiums and pensions; operation of library and use of library books; operation and maintenance of physical plant; use of buildings and equipment.

There is no requirement that the contractor shall follow this classification in his own system of accounts so long as his system will furnish the information here called for. It is not the purpose of this article to prescribe uniform accounting methods. It is the

purpose to lay down the basic principles governing the determination of costs under government research and/or development contracts with educational institutions, which principles can be observed by means of any suitable accounting system in accordance with generally accepted institutional accounting practices. In determining the total cost of government research projects, no distinction is made between "fundamental" and "applied" research.

It is contemplated that ordinarily indirect expense will be reimbursed to the educational institution on the basis of a predetermined percentage of direct salaries and wages chargeable to and specified in the contract, and that such predetermined percentage will be applicable to all research and/or development contracts with such educational institution during the period for which such predetermined percentage is to be applied.

#### NOT INCLUDED

Direct costs and indirect expenses as here defined do not include the following items, whether or not customarily classified by the educational institution as direct cost or indirect expense: (1) salaries, wages and expenses of deans of schools and heads of instructional departments; (2) costs directly related to auxiliary enterprises and activities; (3) costs related to extension; (4) other noneducational activities and expense; (5) costs relating to museums and similar activities; (6) costs of new additions or replacements of equipment and books; (7) allowances for interest on borrowed capital; (8) losses on other contracts; (9) losses from sales or exchanges of capital assets; (10) fines and penalties; (11) bond discounts or finance charges.

<sup>2</sup>Can be obtained from Superintendent of Documents, U.S. Printing Office, Washington 25, D.C.

---

## *An Adequate Maintenance Program . . .*

. . . in relation to the budget is a perennial problem for college administrators. In the December issue Kenneth R. Erfft of Furman University will suggest the approach taken at his institution to arrive at a solution.

---

Where, in the academic economy, do we place the

# COLLEGE LIBRARY?

ROBERT N. BROADUS

Librarian  
George Pepperdine College, Los Angeles

HOW MUCH MONEY SHOULD THE college or university spend on its library?

Some writers, realizing the difficulty of this decision, merely reply that the funds should be "adequate." This really answers practically nothing. Two or three hundred Great Books on a pine shelf might provide a desirable four-year reading program. (It should be remembered that Plato and Aristotle, with small libraries, had pretty good schools, albeit unrecognized by the Greek Ministry of Education and unaccredited by the Athens Association of Colleges.) On the other hand, a collection the size of the Library of Congress, British Museum, and Bibliothèque Nationale put together would still have many gaps in the finer classifications of knowledge, and the determined seeker for information, say, on the exact number of whiskers possessed by all the rats born in London, July 3, 1616, would still turn away sadly, his intellectual thirst unsatisfied.

Other authorities are more definite in their estimates of the proper financial support for the academic library, offering such recommendations as 4½ per cent of the educational budget; 5, 6 or 7 per cent, depending on size of enrollment; twenty-odd (prewar) dollars per student, and so forth.

Actually, the amount of the college budget to be apportioned for library expenditures presents an interesting and perhaps serious problem for the business organization of any institution. The appropriation depends on what things are held valuable at the college, and on such circumstances as the number of students in the various classifications, proximity to other libraries, amount of faculty research expected, and other factors. Beyond this, the college administration, trying to obtain the greatest value from each dollar expended, will realize that a sum spent on the library cannot be spent elsewhere, and vice versa. That is to say, it finally narrows down to the fact that \$100 for a new sidewalk

cannot be used to purchase a year of "Public Affairs Information Service," and \$2 used to buy a baseball cannot buy a copy of Dr. So-and-So's latest book on internal affairs in Chile.

It is the thesis of this article (as might be expected from the narrow-minded director of a library) that, on the whole, funds spent for books and



other library materials and services bring greater benefit than does money spent on many other of the collegiate functions and equipment. (This generalization is vague enough to save my neck, I trust, and yet it should have some meaning in view of the discussion to follow.)

Let us take up the problem from two distinct points of view: that of the individual member of the college community, and that of the general administration of the institution.

First, from the standpoint of the individual student or instructor, what values are received from the library?

Let us imagine a "typical" liberal arts college of 1000 students, 100 faculty members, and an annual budget of \$800,000. Let us say that \$40,000 is spent each year on the library. This amounts to about \$36.36 per year for each person on the campus—about half his tobacco bill, or two-thirds his coke expenditure. What does he get for this thirty-odd dollars?

In the first place, he gets, probably, upward of \$16,000 worth of books,

which, without the discount to the library, would sell for more than \$18,000. In addition to these new acquisitions, he gets the use of thousands of books purchased in previous years. Even if we count the exasperation of finding that "the" book is checked out to another, this is a lot of print for \$36.36.

Then, the user benefits from the cataloging and classifying service, without which the books would be a staggering pile of uninterpretable paper.

The materials are housed in a reasonably convenient place, so the library user doesn't have to be bothered about his own attic or garage running over. He may read and study at tables or carrels near his materials. (Some veterans with live-wire kids find the library a sweeter place than home itself.)

Another benefit paid by the library fund is the assistance of a reference staff, which may at any time save the searcher a couple of hours trying to locate some obscure information.

It is a strange thing to me, therefore, that some people will not hesitate to go to considerable expense buying and storing books on their own, failing to realize the economy of the academic library arrangement. Recently a professor, called in to give his opinion on what items of a gift should be kept by the library, stacked up a bunch of books which he said were not worth the space, and then in sublimest innocence declared: "I'll just keep these in my office, in case we need them sometime."

Another professor was being consulted about what to keep and what to discard in a gift of English literature. Picking up one specimen, he said in all gravity: "This is not worth the library shelf space, but I *would* like to take it home for my wife to read."

Incidentally, there is the interesting problem: When has a library book

paid for itself? Of course, it is impossible to answer, since one paragraph read by one person might conceivably save that person his money, his personality, or his life, while, on the other hand, most of us read several books a year which influence us so little that no one can tell the difference. But as individual purchasers of books, we face the same question of when a book has paid for itself. How many professors buy and store books which are not referred to more than once a year? Surely it is not too much to say that a library book is worth its salt if it is used an average of once a year for six or seven years. Presumably on several circulations it is read through a time or two.

And so, a person's \$36.36 by itself will not buy much. In purchasing and storing books, therefore, it would seem wiser and more economical, from the standpoint of the individual student and instructor, for an academic community to pool more of its funds to build a strong central library.

Then, from the standpoint of the college administration, what is the relative value of the library?

If we take again our typical college, let us imagine that with its budget of \$800,000 it employs to instruct its thousand students 100 faculty members, giving them salaries averaging \$4000 a year. Our theoretical library, then, is equal in cost to 10 of these instructors. Suppose each instructor teaches four classes and each student takes five. Classes would average about 12½ students each. Now imagine it is decided that the class size should be reduced, and the library's \$40,000 is taken away and used to employ 10 more teachers. The new faculty of 110 would still have about 11½ students, on the average, in each class.

But suppose, instead, the administration decides to double the library budget, reducing the size of the faculty to 90. There would be an average of about 14 students in each class. The point of all this is that, aside from a wider academic offering and other advantages of a large faculty, the actual difference between nothing, \$40,000 and \$80,000 for the library in this college is the difference between having 14, 12½ and 11½ students in the average class.

Now I am not advocating trouble for any of my favored faculty friends, but I will affirm against all comers that if such a college existed, it would

get more educational value from a library expenditure of \$40,000 than from the same amount paid 10 average instructors, and I doubt not my professorial colleagues will agree.

It is true that if academic libraries were given funds entirely out of proportion to the present average, there would be the danger of acquiring some materials that would be used so little as to constitute a financio-educational loss. This is really a no more serious problem, though, than that presented by the athletic coach who has to take a scrub on a long, expensive trip with only a guess as to whether said scrub will be used in the game or consigned to bench occupancy. I have no doubt that some philosophies of education would emphasize the influential vitality of splinter gathering experiences in the delicate unfoldment of the adolescent and postadolescent personality, but such benefits have not yet been scientifically established with precision. Nevertheless, the guess is made and, in like manner, the library has to guess some about the potential use of a new set of books.

I'm not so sure that *any* library book is a complete loss. Though there is no excuse for a library to gather in books just for the sake of building up statistics, there is something educating about sheer numbers of books. One of the most important things a college career should teach is the vastness of knowledge and the complications of getting all the evidence on a given problem. In this sense, long shelves of books, even unused, possibly may add something to the student's reverence for learning. It would be interesting to know how much a person may learn from looking at the

backs of books without taking them from the shelves.

I have heard that there is a rumor to the effect that the president of a great university made some statement interpreted to imply that no library has more than 100,000 good books. I have *not* heard that the president has made any move to give away the extra million now owned by his university.

To go into comparisons on the value of library materials to the college: Books are somewhat like the instruments of a surgeon—delicate, precise tools for use on human beings—hardly the place to skimp. Or to use another analogy (all of them are false anyway), the college may be thought of as marketing information or ideas, practically all of which are drawn ultimately from printed sources. And so, just as the grocer has to be especially careful about the adequacy and quality of his sources of supply, the college should be gravely concerned about its inventory of residual ideas.

Finally, books and other printed or photographic materials are the physical record of practically all human experience. One great purpose of education is to acquaint the student with broader experiences — musical, philosophical, religious, scientific. Hence the primacy of the printed word.

The most sensible and economical way of gathering these materials is not by large expenditures on individual collections, but by greater financial support for the official campus library. Money devoted to the library generally brings richer returns than money spent elsewhere on campus. It is surely not unfair, then, to make the statement that the libraries of many of our colleges should receive far better support.

---

## Write for Volume Index

If you bind your volumes of COLLEGE AND UNIVERSITY BUSINESS you will want the index to Volume 8, covering issues from January through June 1950. You may obtain your free copy by writing to COLLEGE AND UNIVERSITY BUSINESS, 919 North Michigan Avenue, Chicago 11, Illinois.

---

# STUDENT LABOR program at Drexel

*is laboratory for community living*

LILLIAN F. HACK

House Manager and Dietitian  
Sarah Drexel Van Rensselaer Dormitory  
Drexel Institute of Technology, Philadelphia

WHEN STUDENTS WORK FOR MEALS or the equivalent in cash in order to help finance their college careers, what can dietitians or food service directors do to make the experience mean more than dollars and cents to them, to our residence hall, and to our college and university? Do we provide a laboratory that will give these student part-time helpers a real opportunity to apply the technics and skills that they are learning in the classroom? How can they translate the lessons learned in the residence hall dining room and kitchen into experiences that will serve them after they have left the campus?

Drexel Institute of Technology offers both regular and cooperative curriculums in the colleges of business administration, engineering and home economics. Some of our student helpers come to us from a term in industry or go into industry after they have been with us. They learn that we are confronted with problems and situations in the dormitory dining room and kitchen that are similar to those in the business and professional field. Students enrolled in regular courses benefit from the experiences of the cooperative students who have had firsthand contact with the business world. Girls majoring in home economics, working with regular employes, help to establish and uphold high standards in food preparation and service. Our engineers are appreciative of the operation, care and maintenance of equipment by student workers, and full-time employes admire and respect them for sharing their knowledge.

What do we mean by "a student laboratory for community living"? A community, according to the college edition of the "Winston Simplified Dictionary," is "a body of persons having common interests and privileges, living in the same locality and under the same laws: joint participation, sharing, ownership." A dormitory is a laboratory for community living, not

only for the resident students but for those who have any part in maintaining a smooth functioning food service.

The use of student labor by colleges and universities presents many problems. The financial aspect is important, both to the students and to the college. In our emphasis on part-time work as a laboratory for learning, we are considering the question from a personnel point of view. A well trained, integrated and interested student group with common objectives receives much more than financial help. We, in turn, gain much more than service during meal hours. These student workers contribute materially to the well being of the residence hall girls and staff.

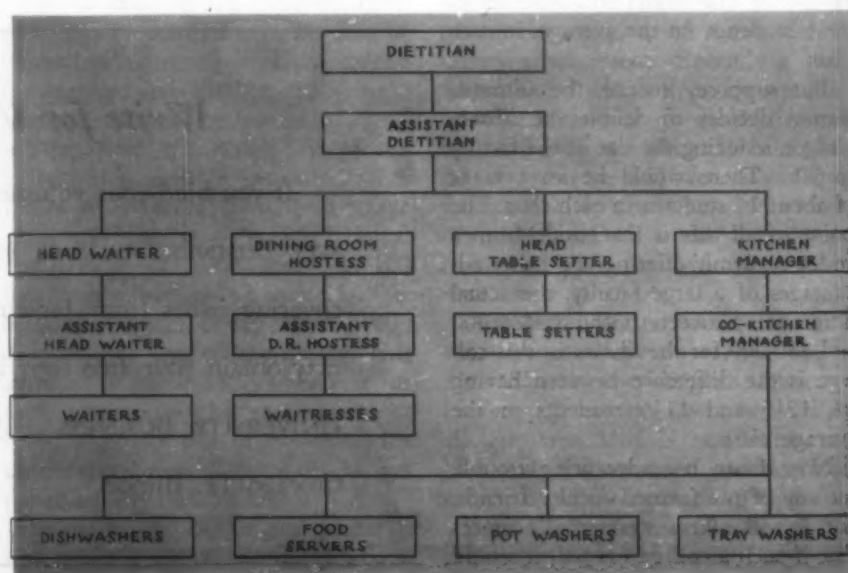
Learning on the job as well as earning is important, and it is our responsibility as food service directors to provide maximum opportunity for the growth and development of the students we employ. Learning is not confined to the students—we profit immeasurably from their comments.

How can the students bring the classroom into the kitchen and the dining room of a residence hall? One concrete example is the accompanying

organization chart, drawn by our assistant head waiter, a business administration major. His explanation was that there are unlimited possibilities in the kitchen and dining room to put into practice some of the theory he is learning in school. This young man is drawing a floor plan of the department to show the "bottlenecks" in service.

How can these students translate the lessons learned in the dining room and kitchen into experiences that will serve them in their lives after they have left the campus? What can we do to make their time with us add to their education for effective living as citizens of a larger community? We make no claim to having all of the answers. We do know that we have directed and worked with a changing group of some 30 men and 20 women students over a six-year period, and that they have become a vital part of our dormitory laboratory for living.

In order to explain our present program at Drexel, we must go back to the years prior to 1944, when men students were employed as waiters and kitchen helpers and a few girls were granted work awards as table setters and as student receptionists in the



dormitory office. During the war it became necessary to replace men with girls as waitresses and kitchen helpers. Men and women working together proved so satisfactory that we planned a permanent organization on this basis.

### SELECTION OF WORKERS

Applications for work are made in the offices of the dean of women and the dean of men, and students are interviewed by the deans and their assistants. Information is obtained in regard to plans for financing college, health, scholarships received, reasons for requesting work, and the like. Forms containing all pertinent information are filed, and the dietitian has access to them when there are openings to be filled. Work awards are granted on the basis of need, willingness to work, and interest in the job to be done. Academic standing is a major consideration and no part-time work can be allowed to interfere with scholastic performance.

After we have selected our student helpers each one receives a personal letter notifying him of his appointment, when he is expected to report for duty, remuneration, hours and conditions of work. The student is requested to acknowledge the letter.

### COOPERATIVE PLANNING

Drexel Institute operates on a term basis. Students report for dining room and kitchen duty the day before registration. New employees are introduced and are given an outline of their duties and responsibilities. All planning and policies that concern them are considered on a cooperative level. Everything possible is done to help the students understand how they fit into the dormitory laboratory for community living.

Each unit has a leader and an assistant, or co-leader. The unit heads are asked to assume responsibility for planning meals off, work assignments, and a certain amount of the training of new recruits in their specific jobs. In addition to meals, these leaders are paid a monthly wage in cash in return for the extra time involved.

All schedules and plans are made jointly with the leaders and their co-workers and are approved by the dietitians. Absence from meals without excuse makes the students liable to suspension for a stated period. They may be dropped from the list for continued infractions of rules, but not



without a thorough investigation of the circumstances by the dietitians and, when necessary, by consultation with the dean.

Democratic procedures are followed at all times. Each student has a vote and a voice in any matter that concerns him. Cooperative planning takes thought, time and energy but the results are well worth the effort. Such procedure is essential to the encouragement of mature thinking and is an integral part of the students' education. The welfare of the dormitory residents whom we serve comes first; our organization must conform to their needs.

Each member of every unit is trained to perform all of the duties of his group. Plans to cover the job in slack periods are made by group or unit conferences. By delegating some responsibility to unit leaders we can reach 50 students quickly when changes or new plans are indicated. Volunteers to work for special occasions at an hourly wage rate are always available. The teamwork displayed by the student group has an appreciable effect on the regular employees so that there always are many willing hands to take care of jobs to be done in the dining room and kitchen.

We try to clear suggestions and complaints in regard to food service through the dining room hostess and her assistant. They meet with the members of the dormitory student government or, if advisable, with the more than 200 girls who live in the house. Likes and dislikes of food and service are discussed, and constructive ideas and criticisms are brought to the dietitians for consideration and action.

### DEVELOPMENT OF LEADERSHIP

Leaders are chosen for their ability to get along with fellow students, objective point of view, judgment, willingness to accept responsibility, and the desire to improve service. We do not select these leaders; they earn their

promotions and their authority by the quality of the work they do. As they are graduated or leave for periods in industry, there are assistants and others who have been trained to carry on.

We believe that the feeling of importance and of belonging to our group—our community—is carried over on the campus by our students. These young people have proved that they can work during meal hours and at the same time maintain high scholastic averages, as well as enjoy sports and other extracurricular activities. Our "kitchen and dining room gang," as they call themselves, includes officers of classes, fraternities, sororities, honor societies, reporters on the school paper, student government leaders, and members of the student council. We have "prom queens," glee club members, athletes—in fact, a representative cross section of the institute as a whole.

### HOW STUDENTS BENEFIT

What have these part-time student workers learned that will help them to be better citizens? Have we given them anything that will make them better homemakers, businessmen, career women or engineers? They have learned respect for discipline and order, and pride in work well done. Good work habits have been developed. Punctuality and reliability have been recognized as "musts." The integrity and personality of each individual have been recognized; the relationship to one another, to the food service administrators and to the dormitory residents has been realized in working as a team.

These students have learned that every task is important, whether it involves wearing a white coat and serving in the dining room or an apron and washing pans and dishes. They are confident that the efficiency of the whole is determined by the performance to the best of his ability of every man and woman who has ever been a part of the team. The regular kitchen employees have been their friends and have sometimes been advisers.

The students have been urged to use scientific thinking on simple everyday problems. They know that consideration for others results in a harmonious atmosphere. They know that sanitation is a way of life and that accidents and breakage can be prevented by studying cause and effect. Democracy is more than a word to these students who have worked together for a common goal.

## FOOD SERVICES

H. B. BENTSEN

Former Executive Director  
George Williams College Camp

IT HAS RIGHTLY BEEN SAID THAT AN army moves forward on its stomach. This might also be said of a modern educational institution, provided, of course, that provision is made on the campus for intellectual and spiritual growth along with the physical.

To say that food services on the average campus constitute a major administrative function is really putting the matter mildly. College and university food service is costing somebody \$21,000,000 a week, or approximately \$1,000,000,000 per year.

Suppose only 1 per cent could be saved through better management. One per cent of \$1,000,000,000 would provide 6660 \$1500 scholarships for worthy and needy students. That, however, is not the point. The important thing is that good food and good service need not necessarily cost more than poor food and poor service.

Just what are some of the necessary qualifications for becoming a successful food service director? What should one be like and what training should one have to meet such qualifications? To these questions there is no definite or complete set of answers. If a person has the necessary interest, aptitude and so forth for becoming a successful food operator, the first step to take would be to get some technical and professional training in the field of institution management or dietetics. This would include such courses as menu planning, quantity cooking, purchasing, storage of food, preparation of food, general accounting, cost accounting, record keeping, personnel administration, public relations, and many other related subjects.

After this technical training, the successful dietitian should have:

1. A faculty for preparing and serving food economically in a creative and imaginative manner.

2. The ability to administer effectively a staff, make decisions and carry

out a food service program suitable to the peculiar needs of her institution.

3. A freedom from any major emotional disturbance that might cause a breakdown of initiative under situations of stress.

4. The ability to remain objective under criticism and a willingness to consider facts when presented.

5. An appreciation for good relations between the food service department and all other departments.

6. A genuine liking for people, with prejudice toward none.

7. The ability to work with superiors and subordinates equally well.

8. A genuine sense of humility.

9. An awareness of her own limitations and an eagerness to eliminate them or improve upon them.

10. The ability to plan, organize, administer, delegate responsibilities, and clarify the functions of a food service staff and then personally be able to refrain from cutting across lines of responsibility.

11. The necessary skill required to get results without displaying authority unduly.

### MUST POSSESS MANY ABILITIES

Furthermore, the food director who wants to be a success should have the ability to sense the needs of the institution and be willing to operate in harmony with its objectives and purposes; to meet people easily and feel at home among students, faculty and guests; to discount unfair criticism without vindictiveness; to deal patiently with youth and adults alike, be they staff members, faculty, students or guests; to see the humorous side of things as well as the serious; to surround herself with associates who will complement her own inadequacies, and to be willing to give others credit where credit is due; to keep her attention on major objectives, always seeking improved methods and short-

cutting where possible to get better results at less cost.

A few of the things a food director has a right to expect from the administrator are listed here.

1. A clear definition of her position and her place in the organization.

2. An explanation of the policies of the institution and particularly those related to her department, such as personnel, buying, catering and costs.

3. An opportunity to have regular meetings with the business manager and other department heads to discuss common problems and policies.

4. An opportunity to consult with administrative officers of the institution, building architects, and engineers when matters pertaining to food services are being considered.

5. To be consulted on budget matters affecting her department, such as food costs, salaries, replacement of equipment, overhead charges, interdepartmental charges, and related items.

6. Constructive criticism when justified, but at the proper time and place.

7. A personal introduction to all the heads of other departments where cooperation would be essential.

8. Restraint from jumping at conclusions before getting facts.

9. Giving of credit where and when credit is due.

10. An opportunity for professional growth through attendance at professional meetings and conferences.

11. The right to select her own staff and to recommend salary increases.

12. The right to defend members of her staff when they are under fire.

The food service department is an important factor in the total college budget; it can be either a financial asset or a financial liability. That is where the food director has to prove her worth. She should welcome carefully planned cost controls. She should insist on sound budgeting, scientific purchasing, good accounting, and record keeping. She should study market conditions and take advantage of seasonal foods. She should be alert to losses through food waste, dish breakage, and other sources. She should seek constructive criticism and profit thereby. Every effort should be made on her part to develop a spirit of loyalty and thrift throughout her organization.

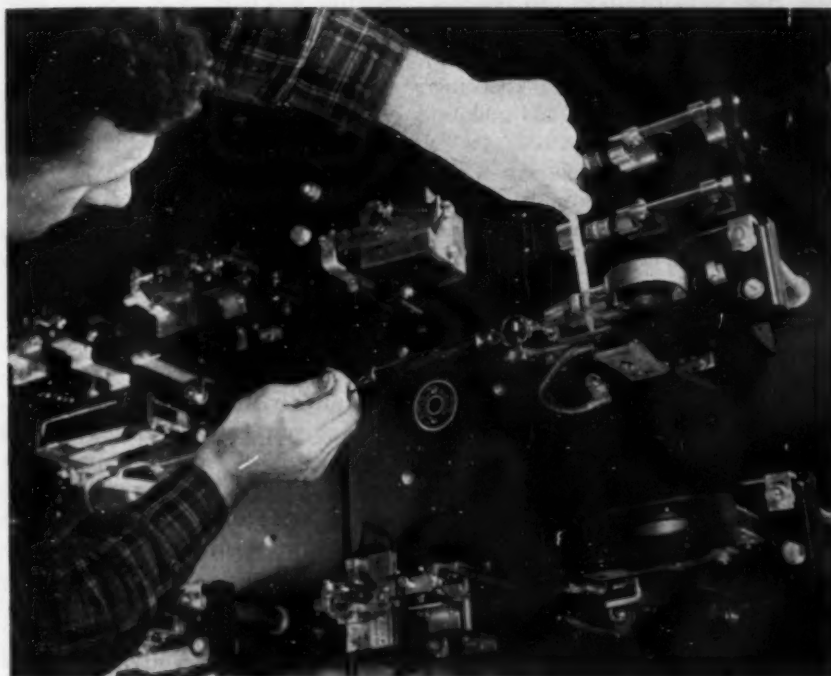
A knowledge of standard food specifications, uniform servings, thrifty use of leftovers, and literally hundreds of other details is necessary if she is to become a successful food director.

# MAINTENANCE

## *of residence halls at Michigan*

**F. C. SHIEL**

Business Manager of Residence Halls  
University of Michigan



ALTHOUGH IT REQUIRES THE COMBINATION of a great many activities and conditions to provide the college student with a comfortable and happy life in our residence halls, one of the most important, from the standpoint of both the resident and the management, is a well kept and properly maintained building.

The fact that it may cost as much as \$7000 or \$8000 a student to provide the best in a temporary home for him does not guarantee his well-being and happiness. A well maintained war surplus home may be a thousandfold more hospitable and inviting in spite of its lack of the latest in modern conveniences and furnishings.

### **CARE BEGINS IMMEDIATELY**

Maintenance begins the day that the completed building is turned over to the college or university authorities for use. If an orderly program for its care is not carried out with dis-

patch, student morale will suffer, to say nothing of the eventual cost of putting the plant in order. If management does not take pride in its halls, no one else will.

I should like to outline the procedures followed in the maintenance of buildings at the University of Michigan, which in theory should provide satisfactory results with as little expense as possible. To carry out any program, regardless of its nature or purpose, the cooperation of all individuals concerned, directly or indirectly, is needed, from the resident, the staff, and on down through the occasional tradesman assigned to some particular task in the building. In a program based on cooperation, few things will slip by unnoticed. It is obvious, however, that for the most part we must rely upon our own staff to provide the necessary information around which the program is to be planned and carried out.



Above: Routine daily maintenance is carried on by the housekeeping and janitorial departments. Left: Minor repairs and adjustments to equipment are made by the head janitor; in a large residence hall, by a mechanic.

The organization having to do with maintenance of our residence halls consists of the business manager of residence halls and the maintenance mechanic working with the dietitian-manager, mechanic and head janitor who are located in each building. Among his other duties, the business manager of residence halls is charged with the responsibility of planning and carrying out the entire maintenance program of the buildings and their furnishings and maintaining an adequate staff to accomplish the desired result.

### **DIETITIAN-MANAGER IN CHARGE**

The maintenance mechanic reports directly to the business manager of residence halls, while the building mechanics and head janitors report to the dietitian-manager in charge of the individual buildings. The maintenance mechanic, however, as a representative of the business manager of residence halls, may work directly with the building mechanic or the head janitor in buildings where a mechanic is not employed in working out its problems or in getting information concerning the building. In all cases, the dietitian-manager will be informed as to what has transpired since she has the responsibility for the physical operation of the building.

The most important position is that of a competent and conscientious main-

tenance man whose responsibilities consist of inspecting, reporting, recommending ways and means, and following a job through to its completion. The information gathered by him will come through personal inspection, from reports from maintenance staffs in the building, and from tradesmen reporting on their findings while working in or around the building. However the information gets to him, it is his duty to look into it and follow through.

The maintenance inspector also must be well versed in the mechanics of the building. Checking plumbing, heating and ventilating systems and electrical wiring constitutes another part of the inspector's job. He should be present when tradesmen are called in to make repairs, and from their inspection determine how extensive the work will have to be. Still another part of his work will be that of checking the mechanical equipment in the building, instructing the mechanic or head janitor, and criticizing the work. He should help the men organize their work so that the mechanical equipment is adequately maintained at all times, and although he is not directly connected with housekeeping departments he should stand ready to assist whenever a problem presents itself.

The mechanic employed in the large residence halls and the head janitor in smaller units are responsible for the maintenance of the building equipment. Daily and periodic inspection of all mechanical equipment and the making of minor repairs and adjustments within the scope of their capabilities form an important part of their work. They are free to call in the maintenance mechanic whenever they need assistance. We have found in opening a new building that, if a mechanic or a mechanic's helper who has been on the job from the start of the building can be employed, he makes an excellent addition to the staff. This is especially true if arrangements for his employment can be made during the course of construction. He will know the building literally from the ground up, and in many cases will be able to locate and diagnose difficulties with a minimum of effort.

The foregoing remarks concerning the maintenance personnel may not be applicable to your situations because of labor conditions, college policies, or the size of the institution. Regardless of these considerations, the maintenance work has to be planned for and

carried out, and it will be done essentially the same way whether it is the responsibility of the management of the residence halls or that of the buildings and grounds department. In the case of the latter, management becomes a reporting agency to supplement the information gathered by the buildings and grounds inspection.

Maintenance can be divided into two main classifications:

**Routine Daily Maintenance** is that which is carried on by the housekeeping and janitorial departments in their scheduled work throughout the building. Also included under this heading is the daily repair work of the mechanic or head janitor, such as fixing leaking faucets, oiling and checking of motors and machinery, and making small equipment repairs.

During the summer months while buildings are shut down and in regular school recesses, the maintenance work carried on by the housekeeping and janitorial departments is much more extensive. A more or less general renovation takes place during these periods, which includes wall-washing, scrubbing and rewaxing floors, checking furniture for repairs, cleaning and waxing furniture, cleaning upholstered furniture, arranging for cleaning of draperies and rugs, and doing numerous other jobs.

**Periodic Major Repairs and Alterations** are carried on seasonally or periodically, ordinarily requiring the services of skilled trades. It is not to be assumed from this definition that this type of maintenance is carried on at specified times only. Granting that some maintenance work is carried on at definite periods of the year for the most part, once a building begins to age, repair work of one kind or another is almost a continuous process.

Maintenance work under this classification can be broken down as follows: (a) repairs to exterior structure; (b) repairs to interior structure; (c) repairs to mechanical installations; (d) overhauling and repairing of machinery; (e) decorating of interiors; (f) major building improvements and alterations. Each section will be discussed separately.

#### REPAIRS TO EXTERIORS

Over most of the northern half of the United States the winters are the cause of a large share of exterior maintenance. Freezing and thawing weather opens joints in stone and brick work, causes damage to slate and built-up

roofs, sun decks, flashings and water conductor systems. Annual inspection for winter damage usually takes place early in the spring in order to plan for repairs during the summer. In some instances, it will be advantageous to anticipate work that may have to be done to a building exterior and to combine it with other planned work requiring the same type of equipment, such as pointing and calking stone and brick work before painting of windows and trim, thereby making use of the same scaffolding for both jobs.

It does not follow that each year a building will have to be pointed; however, it must be inspected for such damage in case it has occurred. Ordinarily, in the Michigan climate the exposed areas of stone work on copings and entrance plazas and steps will need calking or repointing every 10 or 12 years, with occasional spot work to be done every year. Slate roofs and quarry tile sun decks will need attention every year.

Exterior painting of trim and windows will have to be done at least every five years, with special attention oftener on the elevation subjected to sun and rain. In general, the prime object of exterior maintenance is to keep the building water-tight. In turn, the protection afforded keeps the interior relatively free from expensive repair work.

#### REPAIRS TO INTERIORS

Ordinary repairs and maintenance of the interior structure will not be extensive if leaks have not occurred. Over a period of 25 or 30 years, it is expected that the plastering will begin to give some trouble; depending upon the materials used in wall construction, the plaster on some areas may have to be replaced in its entirety. Otherwise, plaster patching will take care of building cracks that develop from time to time and small areas of loose plaster resulting from unusual wear and tear.

Depending upon the material, resilient floors will have to be replaced in 15 or 20 years. Slate, stone, pre-cast terrazzo, and concrete stair treads will not last much longer than 10 or 12 years if they are subjected to much traffic. The most serviceable type of stair tread seems to be a quarry tile that has been impregnated with carborundum.

Shower stalls have to be inspected annually and calked if necessary, to prevent damage to plastered walls and

ceilings in the area. Window hardware on steel sash must be inspected to see that all is in working order and sash weight cords replaced on double hung sash. Room locks and keys must be checked and repaired, and key replacements made.

Particular attention must be given to kitchen areas. Floors around cooking equipment are likely to be pitted and joints opened from hot greases and food acids. If in bad condition, the floor should be replaced in these areas; otherwise, pointing of joints will suffice. Floors in poor condition produce a definite hazard to the employee and constitute a breeding place for vermin and bacteria. The maintenance work to be carried out in the kitchen area is a project by itself.

#### MECHANICAL INSTALLATIONS

After heat has been turned off in the late spring, it is well to go over the entire heating system of the buildings. All traps should be cleaned and repaired or replaced, and valves checked in all heating lines from the tunnels to the individual radiator installations. When heat is turned on again in the fall, it will be necessary to recheck the system for leaks resulting from earlier repair work. Fin-type and cast-iron radiators installed behind enclosures should be thoroughly vacuumed at this time in order to ensure the most efficient operation.

Ventilating systems and fans should be checked, and particular attention should be given to exhaust systems. The exhaust grilles, wherever located, are likely to be nearly closed with dust and lint after a season of operation, materially reducing the system's efficiency. The exhaust fans also become covered with dust, dirt and grease. This is especially true of kitchen exhaust systems which become coated with grease from cooking operations and produce a definite fire hazard.

During the shutdown period, the plumbing system should be thoroughly inspected for leaks. Ordinarily, leaks that develop in main supply lines during the course of the year can be remedied by the use of clamps unless they are too serious. Permanent repairs should be made during this period when shutting off water will cause little inconvenience.

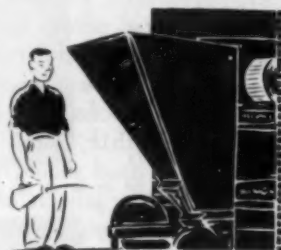
Fire extinguishers should be inspected and reloaded at least once a year, and the hose stored in each cabinet should be checked to make certain that it has not become hard and brittle. If proper drying facilities

are available, it is a good plan to test the hose under water pressure every five or six years. Fire alarm systems also should be checked to make sure that all alarms are in working order.

Most repairs to the electric service are made as the need arises. Occasionally, collection of moisture in the conduits will ground the lines. If the trouble cannot be corrected, it may be necessary to run new lines to carry the service, and the work must be done regardless of the time. Defective wiring, switches, outlets and appliances never should be neglected because of fire and physical injury hazards.

Most of our buildings having kitchens are equipped with machinery that periodically must be overhauled. Gear boxes must be flushed out and new oil put in. Moving parts of the machines should be checked for excessive wear and replacements made as necessary. Dish machines, in particular, should be given a thorough overhauling to prevent the consequences of a breakdown, once the dining room is in operation.

Repairs to refrigeration machinery are necessarily made at the time of a breakdown; however, during the period the building is closed, it is a good plan to have it inspected and checked in



order to ensure efficient and positive operation. This work should be done by a competent refrigeration mechanic, but the servicing of other machinery can be accomplished by the mechanics in the individual buildings. Because of the responsibility involved, the maintenance and servicing of elevators should be either contracted for or maintained by specially trained elevator men of the buildings and grounds department.

#### DECORATING INTERIORS

Except for special paint jobs made necessary for various reasons, the decorating of a building is a major expense that can be planned on every three or four years. It can be accomplished in either of two ways: (1) contracting for work to be completed

in the shutdown period, or (2) having the work done by the buildings and grounds department. In the latter case, in a building of any size the work undoubtedly will have to be carried on while students are in residence.

Not many institutions have a paint department that can handle a large residence hall in a short period of time, especially when most of this type of work has to be done in classroom and office buildings during the same period. The quality of workmanship is usually better when done by the institution, and it costs less. In this connection, the services of an interior decorator maintained by the institution relieve management of a great deal of responsibility. Harmonious and pleasing interiors are conducive to maintaining student morale and decorum and to providing job conditions for staff that will result in more efficient production and workmanship.

#### MAJOR ALTERATIONS

Older buildings eventually will need to be completely renovated and modernized. The original plumbing and heating systems have a definite life limit; after a period of about 35 years, these installations will have to be renewed. Over that period of years fixtures and designs of various utility rooms will have become antiquated, and while the building is upset, desired architectural changes should be made. It may be that whole interior sections of the building can be restudied and redesigned to provide a more efficient and profitable use of space. If funds are available, every possible improvement should be made at such time to make the building modern, serviceable and as nearly comparable to current thinking as possible.

No attempt has been made to present costs on maintenance work because there are only a few items in which a comparison can be drawn. Labor and job conditions vary considerably between localities and, perhaps with the exception of painting, no two jobs are alike.

It has been assumed that each institution has the money for this work available from reserves set up especially for maintenance and replacement in depreciation accounts, or from current operating funds. There are many pros and cons regarding which method of financing maintenance work should be used, but the fact remains that the work must go on. Good maintenance is good business.

# NEWS

**Outline Steps to Follow in Appealing G.I. Tuition Rates . . . Order Restricts Construction of Recreational Facilities . . . Study Role of Higher Education in Defense Program . . . Southern Program Upheld . . . Many Dormitories Fire Risks**

## **V.A. Outlines Steps to Be Taken by Schools in Appealing Tuition Rates**

WASHINGTON, D.C.—The Veterans' Education Appeals Board has outlined steps to be followed by schools appealing G.I. bill tuition rates set by the Veterans Administration.

The board was established July 13 by Public Law 610 to hear appeals by certain schools that are dissatisfied with the rate of payment of tuition, fees or other charges allowed by V.A. in connection with the training of veterans.

According to the board's new regulations, the appeals process starts when a school files notice of appeal with the board. The board will acknowledge receipt of the notice by registered mail. Next, the school has 60 days in which to submit a formal application for appeal. The 60 day period starts with the receipt by the school of the board's acknowledgment.

The board said that the official application should include specific actions with which the school is dissatisfied; concise statements of each error which the school believes the V.A. has made in its determinations; the school's contention with respect thereto; the facts upon which the school relies as sustaining its contention, and, where available, the official V.A. notice or determination upon which the school's appeal is based.

As a third step, the V.A. will be given the school's application, and will have 45 days in which to answer the allegations. If the Veterans Administration raises new issues not included in the school's formal application, the school may have a reasonable period of time to reply to the new points.

Finally, a hearing will be scheduled. Hearings may be held either by hearing examiners in V.A. regional offices throughout the country, by the board

itself or by hearing examiners in Washington, D.C. Regional office hearings obviate the necessity of school officials and witnesses traveling long distances to testify.

If an examiner conducts the hearing, he will write an initial decision based upon the evidence submitted. Both the school and the V.A. will receive copies and, if they are not satisfied with the initial decision, each will have 30 days in which to make a final appeal to the full three-man board. Initial decisions become final and binding if not appealed within the 30 day period, the board stated.

The appeals board offered schools some suggestions on preparation of appeals to save time and effort.

Formal applications should be limited to the precise points involved. Extraneous, immaterial and irrelevant matters only cause confusion and slow down the appeals process.

Whenever possible, facts which really are not in issue should be resolved beforehand by schools and the Veterans Administration. An example would be the fact that certain contracts had been entered into between the V.A. and the school covering specific periods.

At the time of the hearing, school officials should be prepared to submit relevant, material and competent evidence—either oral or written—of sufficient value to support their contentions.

## **Many Veterans Still Entitled to Training**

WASHINGTON, D.C.—As of August 30, only 373,581 of the more than 7,000,000 veterans who have trained so far under the G.I. bill had exhausted their entitlement to further training. July 25, 1951, is the cut-off date for starting G.I. bill education and training for World War II veterans.

## **N.P.A. Issues Order Restricting Construction of Recreational Facilities**

WASHINGTON, D.C.—Issuance of Order M-4 by the National Production Authority on October 26 places a ban on construction of any new buildings for amusement, recreational or entertainment purposes. It will be the policy of N.P.A. to restrict construction of buildings begun after October 26, when it is considered that such construction interferes with defense production.

Spokesmen for N.P.A. stated that the order could be extended to any structure, but "it would be farfetched to assume that the powers inherent in the order would be used to block the building of homes, hospitals or schools."

Order M-4 does not affect any construction under way before October 26. It also permits normal repair and maintenance and a limited amount of alteration and remodeling. Construction projects costing less than \$5000 are exempted for a 12 month period from the restrictions by the order.

College administrators have expressed concern over the section in the N.P.A. ban which places stadiums and swimming pools on the restricted list "except when incidental to a building used for general classroom, laboratory or general educational purposes." The same restriction and exception applies to gymnasiums. The status of college union buildings, which include bowling alleys and other recreational areas, has not yet been clarified.

It is expected that college and school gymnasiums will fare better under M-4 than stadiums. Likewise, indoor portable bleacher installations are expected to be approved, whereas outdoor type bleacher installations will be restricted.

# MEDART

## STEEL

## LOCKERS

### 5 POINT SUPERIORITY

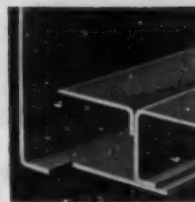
1

**SECURITY** because the door locking mechanism is *pickproof* . . . dual-latch . . . concealed in the channel lock rod it is pre-locking, positive latching. Operates whether door is slammed or gently shut. Exclusive Medart patent.



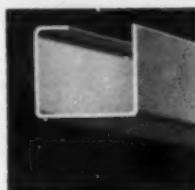
2

**STURDY BOTTOMS** . . . to take punishment. Full width  $\frac{1}{4}$  inch flange of bottom rests solidly on heavy 16 gauge steel frame member. No possibility of breaking or sagging. Be sure to compare this Medart feature with ordinary type locker bottoms.



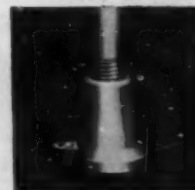
3

**LONG LIFE** because of channel frame construction . . . 16 gauge steel, top, bottom and side frame members ensure rigidity and added strength. All parts electrically welded into solid square frame to assure proper fitting of door.



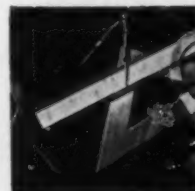
4

**ADJUSTABLE LEGS** that can be raised or lowered to compensate for unevenness of floor. Legs are correctly spaced every two or three lockers (depending on locker width) to facilitate cleaning under lockers.



5

**STYLING** . . . for efficiency and modern streamlined appearance. Absence of hinge bolt-heads on doors, styling of louvers, handle and legs give Medart Lockers that smart modern "functional" look. Simplicity that bespeaks smooth operation.



MEDART STEEL LOCKERS available in all standard types and sizes . . . either recessed or free standing. Write for descriptive literature . . . Send your plans for suggestions.

**FRED MEDART PRODUCTS, INC.**

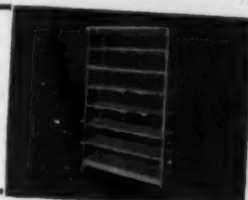
6636 DEKALB ST.

ST. LOUIS 16, MO.

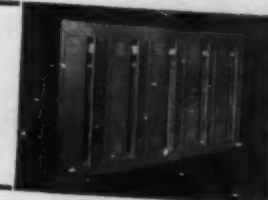
Leadership for Over 75 Years in School Equipment

**P.S.**

Wire Basket Shelving and Wire Baskets for use where the privacy of Steel Lockers is not required. Write for descriptive literature.



Medart Steel Lockerobes with "Simultaneous Opening-Master Door Control" for elementary school use. Write for descriptive literature.



## College Administrators Study Role of Higher Education in Defense Program

WASHINGTON, D.C.—The conference on Higher Education in the National Service, called by the American Council on Education on October 6 and 7, registered 974 persons. Its purpose was to provide representatives of higher education and of government with a chance cooperatively to plan for effective utilization of our colleges and universities for long-range, immediate and foreseeable emergency needs.

The conference adopted six resolutions, the gist of which is as follows:

1. The greatest power of the nation lies in well educated and well trained men and women. It is imperative that opportunities for higher education for persons of superior ability be substantially increased, irrespective of race, creed or economic status. A properly safeguarded student deferment policy is in the national interest. Such deferment should employ measures of individual aptitude and capacity and should not be based on courses or curriculums leading to specific professions or vocations, except insofar as such specific deferment is now established by law or directive or shall later be judged to be necessary for the national interest.

2. In order that all available college facilities may be used to maximum extent, a detailed survey of facilities should be undertaken immediately. Any program of priorities and allocations established by the government should include educational institutions at a high enough priority level so that they may render essential services for national defense and public welfare.

3. Basic research in all fields of knowledge should continue.

4. Colleges and universities should assume their full responsibilities as community and educational leaders in the program of civil defense.

5. Colleges should cooperate with federal agencies in strengthening programs for international responsibilities, with particular emphasis on the Far East.

6. Standing committees of the A.C.E. should continue the study of the topics discussed in the resolutions and continue national planning of all aspects of the relationships between higher education and the government.

Discussion during the two days centered upon 10 major sections. Essen-

tial points of the conclusions reached are summarized:

*Military and Other Training Programs.* Colleges were urged to review the problem of military and other training programs from short-term and long-term points of view. There was concern over the apparent lack of a centralized plan for the accumulation of data on facilities available in the colleges which might be used in training programs.

*Research.* Emphasis was on the importance of continuing the basic research in all fields of knowledge. Universities should not be asked to participate in applied research unless they have a special contribution to make not easily duplicated by industrial or governmental agencies. Every academic institution must determine for itself the type of education and the program of research most appropriate to its own environment and objectives.

The National Science Foundation should be placed in effective operation as rapidly as possible; the whole program of research needs the moral support of the government as well as the financial underwriting.

It was recommended that the establishment of any single governmental agency responsible for the allocation of all federal research was undesirable. It was recommended that sponsored research should be initiated and controlled by the diverse agencies immediately and directly concerned.

It is anticipated in the interests of conserving research personnel and consolidating facilities and resources that the ablest workers in scientific fields may move from the small to the large institutions. The drain from such faculties may have a disastrous effect both on the educational programs of the small colleges and on their capacity to serve the local community.

*Contractual Relations With Governmental Agencies.* A committee composed of college business officers should be formed to serve as a body for governmental agencies and departments to consult in resolving problems of administration of federal research and development contracts and grants, and the group should be spokesmen for the five associations of college and university business officers.

A joint armed services and educational board should be established to determine the policy and method of implementing training unit contracts.

*Allocation of Material.* It was recommended that a high priority level be given educational institutions in view of the place education occupies in national defense and public welfare. In view of the critical need for student housing and the usefulness of residence halls in any program of training associated with the armed services, it was recommended that steps be taken to put into operation immediately provisions of Public Law 475 relative to loans for the construction of housing facilities on college campuses.

*Manpower Utilization.* Concern was expressed that the selective service policy might not properly consider the function of college students in their graduate work relations to the future welfare of the nation.

*Policies Relating to Student Admission and Withdrawal.* There should be no diminution in standards for admission to college in view of present military activities. In general, the group agreed on the principle that refunds of fees should be made when a student was unable to attend long enough to qualify for credit.

*Acceleration.* There was a general reluctance to recommend the adoption of acceleration without considerable study. It was held that a well formulated plan of acceleration duties by a special committee of the American Council on Education would be more advantageous than a hastily formulated one.

*Civil Defense.* Colleges and universities should be alerted to their responsibilities as community leaders in the civilian defense programs in their areas.

*Continuing Essentials of Higher Education.* A policy of quality rather than specialized criteria for the continuing education of young people was recommended. By and large college faculties could render a greater service if left to function as a team rather than if they are scattered by hasty summons to specialized assignments.

*Education for International Responsibilities.* Colleges and universities should devote considerably more time to developing a program of education for international responsibilities.

# SEE MORE with WIDER FIELDS!

Critical focus covers a larger area—*wider fields than ever before!* True stereopsis with the finest optical system ever produced for wide field work. *Save time, money, with dustproof, shake-proof construction.* B&L patented design prevents

dust, dirt, and foreign matter, from sifting down onto the prisms or into the nosepiece. *Extra-sturdy construction resists shock, withstands rough handling . . . for a lifetime of practical use.*



## See THE DIFFERENCE WITH A DEMONSTRATION

Let your own test prove the precise focusing, superb image quality, and time-and effort-saving convenience of the *finest stereoscopic microscope ever made!*

**WRITE** for complete information and demonstration to: Bausch & Lomb Optical Co., 767-W St. Paul Street, Rochester 2, N. Y.



The World's Finest Instruments are made in America



Bausch & Lomb *Stereoscopic* Microscopes

IT'S A  
"RINGER"

*Seelux*\*



3-ring

open bottom



for finest indirect lighting

lifetime beauty, efficiency

practically no maintenance

for silver bowl lamps

#### SPUN ALUMINUM LOUVRES

for distinctive modern design.

#### HEATPROOF ALZAK\*\* FINISH

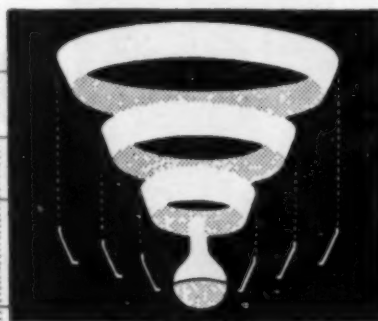
is not discolored or affected by lamp heat.

#### DUSTLESS OPEN BOTTOM

minimizes cleaning — dirt falls through.

#### SILVERBOWL LAMP

provides built-in reflector. Peak efficiency is automatically restored; when lamp is replaced, you have a new reflector.



The functional simplicity and beauty of the GUTH SEELUX make it the standout among indirect incandescent luminaires. Compare these SEELUX specs with any similar fixtures:

Have you our Bulletin 864-N with full details on the SEELUX, SEELUX Plus and other fine GUTH Incandescent Indirects? It's yours for the asking from



**LIGHTING**

THE EDWIN F. GUTH COMPANY / ST. LOUIS 3, MISSOURI

*Leaders in Lighting Since 1902*

\* ® and Patents Pending

\*\* ® and Patented, Aluminum Co. of America

18-Gauge aluminum, emery-grained ALZAK finish. Concentric spun louvres with 25° pitch, positioned with three die-stamped 12-gauge aluminum straps riveted to each ring. Socket cover, semi-polished ALZAK; 6" canopy, stem and swivel, ALZAK aluminum; black porcelain U. L. approved lampholder.

## NEWS. . . . .

### Southern Program Upheld by Arkansas Commissioner

WASHINGTON, D.C.—A. B. Bonds Jr., state commissioner of education of Arkansas and a member of the executive board of the Southern Regional Education Program, stated that the program was not designed to circumvent court decisions against racial discrimination in universities. He addressed delegates attending the 28th annual conference of Presidents of Negro Land Grant Colleges.

Of 388 students sent to universities under the Southern Regional Education Program during the last year, 181 were Negroes and 207 were white. The number now placed in schools under the program is 584, of which 402 are white and 182 are Negroes. Mr. Bonds predicted that through this regional system, under which Southern States send their young people into other states for college training not available to them at home, the whole level of education in the Southern States would be raised.

He reported on the current studies being made to determine how the plants and the laboratory resources of the Tennessee Valley Authority and the Air University at Maxwell Field, Montgomery, Ala., could be utilized as a part of this regional educational system, and said that such resources would be available to the Negro land-grant colleges.

### Machinery Set Up to Permit V.A. to Recover G.I.

#### Subsistence Overpayments

WASHINGTON, D.C.—The Veterans Administration has set up machinery for recovering G.I. bill subsistence allowance overpayments from schools that willfully or negligently fail to report excessive absences, drop-outs or interruptions of training of veteran-students.

The machinery, authorized under Public Law 610, applies only in those cases where willful or negligent failure to inform the V.A. occurred at any time after July 13, 1950, effective date of the law. In all other cases, veterans still can be held liable for subsistence overpayments which they receive for periods when they should have been cut off G.I. training rolls.

The fact of a school's willful or negligent failure to report has to be

# HOW TOILET ROOM ENVIRONMENTS IN EDUCATIONAL BUILDINGS CAN BE KEPT NEW ALWAYS

● Toilet rooms in educational buildings endure a lot of punishment. Yet they should retain their newness over a long period of time. The toilet room is the "silent teacher" of health and cleanliness. The toilet room environment that stays new is the toilet room in which the most suitable type of toilet compartment available has been installed. Toilet compartments usually dominate a toilet room, influence the toilet room environment and emphasize the utility of fixtures and appointments. Who can say that the environment is less important than the plumbing?

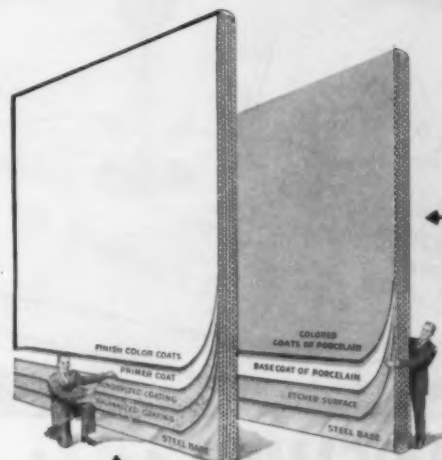
Sanymetal offers several different types of toilet compartments for creating the most suitable toilet room environment for every type of educational building. Sanymetal also offers and recommends Two Full Purpose Metal Base Materials which combine colorful attractiveness with long years of service life and effect important, day after day, savings in cleaning and maintenance cost. These Two Full Purpose Metal Base Materials—Sanymetal "Tenac" (galvanized, Bonderized\* steel), a highly corrosion-resistant material; and Sanymetal "Porcena" (porcelain on steel), the ageless and fadeless, rust proof material—represent years of engineering research and skillful adaptation by Sanymetal engineers of corrosion-resistant steels to the fabrication of new and different types of toilet compartments.

**THE SANYMETAL PRODUCTS CO., INC.**  
1696 Urbana Road • Cleveland 12, Ohio

Over 150,000 Sanymetal Installations have been made in all types of educational buildings. Ask your consulting architect or engineer, or the Sanymetal representative in your vicinity, for information about planning suitable toilet room environments for educational buildings—environments that always stay new.



Sanymetal CENTURY Type Ceiling Hung Toilet Compartments offer the utmost in sanitation and provide modern, distinctive toilet room environments for schools, institutions, terminals and other public buildings.



This is Sanymetal  
**"PORCENA"**  
(Porcelain on Steel)

A metal base material that is impervious to moisture, odors, cleaning and uric acids, oils and grease. It is rust proof. Available in 21 glistening colors.

This is Sanymetal  
**"TENAC"**  
(Baked-On Paint Enamel over Galvanized, Bonderized\* Steel)

A metal base material that is notable for the positive adhesion of the baked-on paint enamel to the metal and its resistance to corrosion. Its lustrous, protective finish assures long-lasting newness. Available in 21 gleaming colors.

# Sanymetal\*

\*Trade Mark Reg. U. S. Pat. Off.

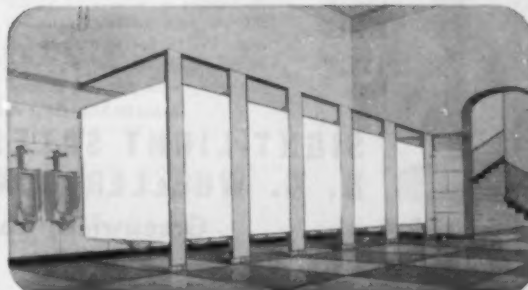
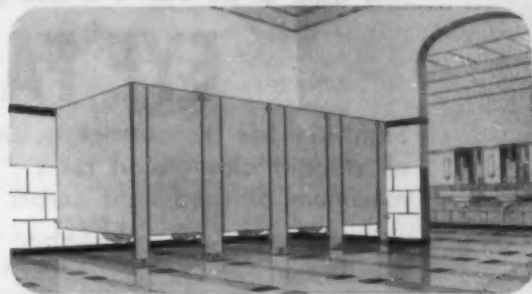
\*Treated with "Bonderite", a product of Parker Rust Proof Co.

## TOILET COMPARTMENTS, SHOWER STALLS AND DRESSING ROOMS

Sanymetal ACADEMY Type Shower Stalls and Dressing Room Compartments provide the utmost in sanitation for gymnasiums, stadium dressing rooms, Y.M.C.A.'s, clubs, trailer camps and tourist motels, etc.



Sanymetal NORMANDIE Type Toilet Compartments endow a toilet room environment with dignity and good taste.



Sanymetal ACADEMY Type Toilet Compartments are suitable for conservative but modern toilet room environments.

## NEWS.

proved at a hearing before a V.A. committee on waivers before the V.A. can take action to recover the overpayment from the school.

Once that fact has been established, V.A. can recover the money by (1) offset from amounts otherwise due the school, or (2) direct collection from the school.

The Veterans Administration cited an example of a case in which it might bring its newly created machinery into play.

It would do so if a school with a record of repeated failures to furnish information or otherwise comply with V.A. regulations again allegedly failed to report a veteran's excessive absences, discontinuances or interruptions. But first the school would have a chance to be heard before the committee on waivers.

On the other hand, the V.A. would not necessarily take action if the failure to report appeared to be an isolated incident and the school otherwise had

a smoothly-running reporting system. Such a single error, officials said, probably would have resulted from an unavoidable human error, rather than from willfulness or negligence.

Under the law, if a veteran refunds a subsistence overpayment after it had recovered that amount from a school, the Veterans Administration would be required to return the amount of the overpayment to the school.

### Risk of Residence Hall Fires in Coming Year Is Great, Survey Shows

CHICAGO.—A report made to the National Safety Council by President H. W. James of New Mexico Western College reveals that the possibilities of a college dormitory fire during the coming year is a real risk on a great many campuses. Questionnaires were submitted to at least three colleges and universities in every state in the Union, and a report of 153 dormitories revealed data as follows:

45 need an emergency alarm system in operating condition.

87 do not have emergency numbers posted near a telephone.

104 do not have evacuation diagrams posted and have no alternative means of escape planned.

91 do not hold fire drills systematically.

37 do not have doors opening outward.

29 do not have panic bolts where needed.

24 do not know when fire extinguishers were recharged.

81 do not demonstrate or explain the use of fire extinguishers.

23 dormitories store oiled mops and rags in combustible containers.

28 dormitories have not been inspected by fire underwriters.

One of the hazards frequently reported in the dormitory survey was the overloading of main electrical circuits as a result of students connecting too many electrical appliances, such as heaters, irons, fans and desk lamps. In at least 14 dormitories, metal wastepaper baskets are not utilized, and 39 dormitories are not supplied with ash trays of adequate number and size. In 47 dormitories, it was reported that students throw cigarets on floors. In 49 residence halls, there are no regulations that forbid smoking in bed.



## An ANSWER to student EYE FATIGUE

Sight-Light is the correct, scientific supplementary light for all student close-vision tasks . . . patented design reflects maximum diffused light across the work field **BELOW EYE LEVEL** . . . reduces glare and eye strain . . . helps to increase student comfort and study efficiency.

Patented reflector and light louvre give maximum light over entire work area



Weighted Base

All light below Eye Level  
13½" high

Available in simplified student model in durable metals and several selected colors for school use. Write for complete information regarding installations in leading schools and institutions, together with special school prices.

IMMEDIATE DELIVERY

**SIGHT-LIGHT SALES DIVISION**  
**M. G. WHEELER COMPANY, INC.**  
Greenwich, Conn.



**This valuable book for executives**

**...YOURS FOR THE ASKING**

This is an *action* book for profit-minded businessmen. It illustrates, describes, *proves* the many money-saving, money-making advantages of Hauserman *Movable Steel Interiors* for hospitals and schools. Filled with actual full-color photographs showing Hauserman installations in *all* types of buildings, large, medium and small. No technical details—just easy-to-read, interesting facts. They prove the wisdom and economy of installing handsome Hauserman *Movable Steel Interiors* in new or old buildings. This valuable book is **FREE**...send coupon or write on your business letterhead for a copy now.



**Partitions • Wainscot • Railings • Acoustical Ceilings  
Complete Accessories**

**Organized for Service Nationally Since 1913**

THE E. F. HAUSERMAN CO.  
6955 Grant Ave., Cleveland 5, Ohio  
Please send me *The Inside Story of Building Economy*.

Name

Title

Company

Street

City  State

## NEWS. . . . .

### "Financial Hurricane" to Hit Colleges, Wriston States

PROVIDENCE, R.I.—Dr. Henry M. Wriston, president of Brown University and of the Association of American Universities, recently stated in an interview that a "financial hurricane" is about to hit the 1800 institutions of higher education in this country. He asserted that during the last year a vast majority of the nation's colleges were operating on deficit budg-

ets, and that he expected academic standards to go down considerably within the next few years. Dr. Wriston stated that the situation is not temporary but is one that can be expected to last for at least 10 years.

In commenting on the development of community colleges planned throughout the nation, which has been encouraged by the United States Office of Education, Dr. Wriston asserted that because of partial mobilization resulting from the Korean war,

community colleges would be almost entirely discontinued. He pointed out that as military expenses increase there should be less likelihood that civilian agencies, such as colleges and universities, will receive any federal support. Lack of action in the 81st Congress on the federal aid bill, a medical aid bill, or any other measure to help education could be considered as a pattern that might be expected to take place in this country, he declared.

Dr. Wriston was pessimistic regarding enrollments as a result of selective service policies, and was of the opinion that colleges and universities must expect an enrollment drop of between 30 and 40 per cent.

The Brown University president stated that many colleges are now eating up their capital funds and are dipping into their endowments, citing the fact that he had authorized transfer of \$360,000 of Brown University's reserves into the budget in order to bring it into balance.



## floor • san® THE SAFE CLEANSER FOR EVERY SCHOOL CLEANING JOB

Proper maintenance becomes increasingly difficult when schools are over-burdened with record enrollments, and the use of efficient, safe, labor-saving cleaning products is most important. Floor-San Liquid Scrubbing Compound helps ease many time consuming jobs. It is a universal cleanser—cleans wood, painted walls, rubber, and metal as well as all flooring materials—safely, thoroughly. Only one solution to make . . . works in any water. Try Floor-San. Write today for more information.

HUNTINGTON LABORATORIES, INC.  
HUNTINGTON, INDIANA TORONTO, CANADA



## CUTS SCHOOL CLEANING COSTS

### Decreases in Enrollment Shown in Walters Study

CINCINNATI.—Preliminary figures released by Dr. Raymond Walters, president of the University of Cincinnati, in his statistical study of college and university enrollments reveal that 75 per cent of 492 American colleges and universities report sizable decreases this year in full-time figures and nearly 58 per cent report considerably smaller freshman classes.

This fall's drop in enrollment appears to continue a downward trend, begun last year from the postwar peak. Dr. Walters attributes this year's decline to the departure from the campus last June of the large 1950 graduating classes, a major proportion of which were veterans of World War II, and also to the small freshman classes, diminished in consequence of the low birthrate of the 1930's.

Noting the decline in enrollments, he pointed out that there are more institutions with decreases ranging from 8 to 14 per cent than there are in any other bracket, with those reporting from 1 to 7 per cent decrease the next largest. At the extreme in falling enrollments are three women's colleges, reporting freshman losses from 45 to 54 per cent.

Women's colleges as a group, however, have slightly better records; 53

**NEW**

**IDEA IN CRACKER SERVICE**

Now in individual  
cellophane  
moistureproof  
packages...



## DANDY OYSTER CRACKERS

... ideal for soup ... chowder ... chili

### Taste better...

All the good, tasty flavor of these salt-sprinkled soup and oyster crackers is sealed right in the new moistureproof envelope.

### Reduce waste...

No danger of the crackers becoming limp and soggy—less chance for breakage, too. The right-sized portion for average soup servings.

### Keep fresher...

The new cellophane package retains the oven-baked crispness which makes Dandy Oyster Crackers so tempting and delicious.

### Save time...

No special handling of unused crackers necessary. Always ready and appetizing in the neat, clean cellophane packet!



#### SEND FOR THIS FREE BOOKLET

packed with ideas on how to increase sales and cut food cost with NABISCO products including: *PREMIUM Saltine Crackers* • *TRISCUIT Wafers* • *RITZ Crackers* • *DANDY OYSTER Crackers* • *OREO Creme Sandwich*

National Biscuit Co., Dept. 21, 449 W. 14th St., New York 14, N.Y.  
Please send your booklet "Around the clock with NABISCO."

Name \_\_\_\_\_ Title \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

BAKED BY NABISCO



NATIONAL BISCUIT COMPANY



14 lane Brunswick Bowling Installation in the Memorial Union of Iowa State College, Ames, Iowa

## BOWLING IS A POPULAR AND SELF-SUPPORTING CAMPUS RECREATION

Read this proof:

"Our new alleys have been in operation for a couple of months. During October, there were 20,226 lines bowled. We feel that bowling makes a real contribution to our Memorial Union program. Both the men and women Physical Education departments include bowling in their regular scheduled classes. These classes are conducted on our alleys."

Iowa State is just one of the many schools that have added Brunswick-Built recreational facilities to their program. Bowling and billiards are completely self-supporting and often help pay for other school activities. Get details.

SEND NOW FOR THESE TWO FREE BOOKLETS  
... containing complete information on  
Brunswick bowling and billiard installations.

Write to Dept. C.B.  
THE BRUNSWICK-BALKE-COLLENDER COMPANY  
623 South Wabash Avenue ... Chicago 5, Illinois  
Branches in 27 Principal Cities



**BOWL**  
*Brunswick*

## NEWS. . . . .

per cent show decreases, 26 per cent, no change, and 21 per cent, increases in total enrollments. However, 45 per cent report decreases in freshman classes, 22 per cent, no change, and 33 per cent, increases in freshman.

In contrast to the teachers' college group in Dr. Walters' 1949 study when he noted that total attendance had held up well, the 69 teachers' colleges reporting this fall showed 44 colleges with decreases, some as large as 24 per cent. Only 12 institutions reported increases and 13 reported no change.

The large proportion of institutions of all types noted far fewer veteran-students in attendance this year than last.

Dr. Walters' preliminary study revealed that the five largest state universities reporting are: University of California, 36,989; University of Illinois, 23,500; University of Minnesota, 22,000; Ohio State University, 20,500, and University of Michigan, 19,000.

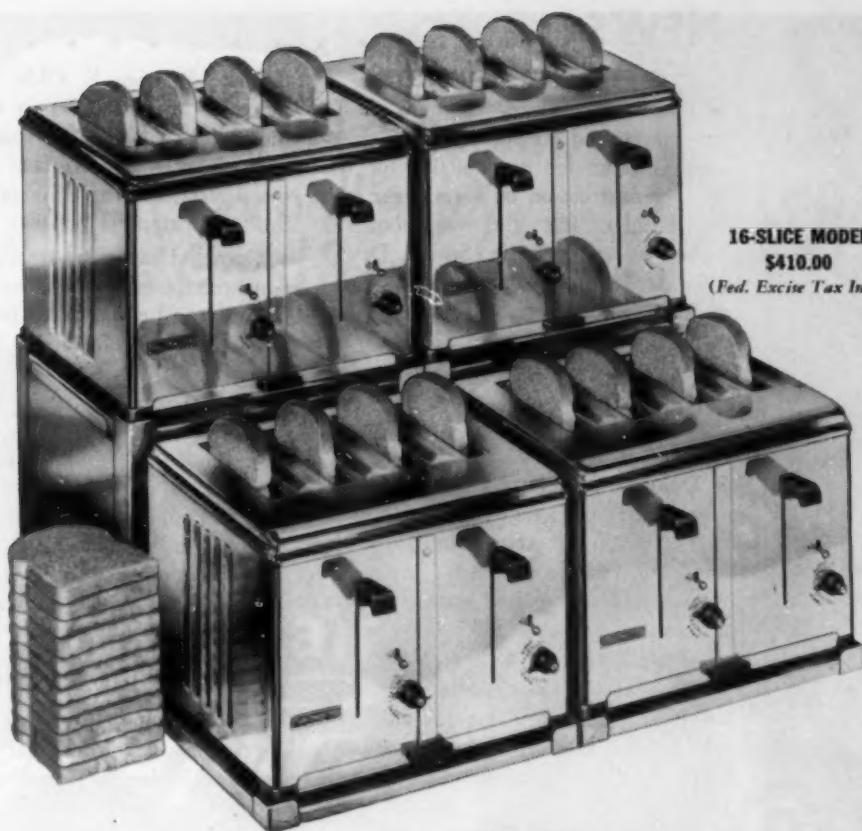
The five largest universities under private control reporting in Dr. Walters' study of estimated enrollments are: Columbia University, 22,050; University of Southern California, 20,153, with more than 50 per cent veterans; New York University, 20,000; Boston University, 11,200, and University of Pittsburgh, 10,067.

### Launches Service Fund Drive

NORTHFIELD, MINN.—"Don't Pass the Buck, Give It" is the slogan for the Carleton College Service Fund drive launched recently. The service fund's annual drive combines all charity requests on the Carleton campus with the aim of bringing the real needs of the world to the attention of students. This year's goal is \$6500.

The funds collected in the drive will be allocated according to the following schedule:

World Student Service Fund, 40 per cent; Carleton Abroad, 20 per cent; Negro Scholarship and Service Fund, 6 per cent; Foreign Student Aid, 6 per cent; Near East College Association, 5 per cent; Polio Fund, 5 per cent; Crusade for Freedom, 5 per cent; Contingency Fund, 4 per cent; Cancer Fund, 3 per cent; Tuberculosis, 2 per cent; Community Chest, 1 per cent; Overseas Blind, 1 per cent; Meals for Millions, 1 per cent; Japan International Christian University, 1 per cent.



**16-SLICE MODEL**  
\$410.00  
(Fed. Excise Tax Incl.)



## TOASTS MORE THAN **16** SLICES PER MINUTE

—in less than two feet of counter space!

**HERE IS PLENTY** of toasting capacity to handle your busiest rush-hour needs. The 16-slice "Toastmaster" Toaster pops up more than 1000 slices of toast per hour—and in a space only 23½ inches wide!

**SUCH CAPACITY** permits you to serve more customers per hour. It eliminates toast-making "bottlenecks." And faster service results in lower costs.

**REGARDLESS OF** how much toast you use, there's a "Toastmaster" Toaster to suit your needs. All are completely automatic. They need no watching—use current only while toasting. There's no pre-heating—so operating costs are low.

**NO BREAD WASTE**, no time lost in re-toasting. Every slice is perfect every time. And cleaning is so quick and easy. A light polishing with a damp cloth keeps extra-thick chromium bright and shining. Every "Toastmaster" Toaster is specially designed for the heavy-duty demands of institutional service.

**YOUR INVESTMENT** is protected for the future, too. Larger models are composed of individual 4-slice units. Buy the size you need now and add a 4-slice unit when you need it.

**YOUR FOOD SERVICE EQUIPMENT DEALER** will be glad to show you which "Toastmaster"\* Toaster best suits your particular needs. Call him about it, today.

**THE 16-SLICE MODEL** pops up over 1000 slices per hour. Other sizes include the 2-SLICE, more than 125 slices per hour; the 4-SLICE, over 250; and the 8-SLICE, more than 500.

**4-SLICE MODEL**  
\$99.50  
(Fed. Excise Tax Incl.)



MAIL THIS COUPON TODAY!

## TOASTMASTER

AUTOMATIC POP-UP TOASTERS



\*"TOASTMASTER" is a registered trademark of McGraw Electric Company, makers of "Toastmaster" Toasters, "Toastmaster" Waffle Bakers, "Toastmaster" Bell and Food Warmers, and other "Toastmaster" Products. Corp. 1950, TOASTMASTER PRODUCTS DIVISION, McGraw Electric Company, Elgin, Ill.

Dept. U-110  
TOASTMASTER PRODUCTS DIVISION  
McGraw Electric Company, Elgin, Ill.

Send me your free booklet of 90 tested recipes—"Toast-Ways to Profit."

Name .....

Institution .....

Address .....

City ..... Zone ..... State .....

My Dealer's Name .....

-EVER HOPE  
FOR A FENCE THAT  
**NEVER NEEDS  
PAINTING?**



**Copperweld**  
NON-RUSTING  
**CHAIN LINK FENCE**

Copperweld® Chain Link Fence is the protective fence that protects itself. It *never* needs a drop of paint—no maintenance costs to worry about. There's no other fence like it. It is made of Copperweld Wire—with a thick, durable copper covering inseparably "Molten-Welded" to a strong steel core.

Because of its unique construction, Copperweld Fence is rust-proof, corrosion-proof. It provides long lasting property protection regardless of atmospheric conditions. It stays strong and in alignment. It costs less because it lasts longer.

Write today for a sample of Copperweld Fence and a copy of our new catalog—free on request.

\*Trade Mark

#### **COPPERWELD STEEL COMPANY**

1020 Monongahela Ave., Glassport, Pa.



## **NEWS . . . . .**

### **GIFTS AND BEQUESTS**

- **Hartwick College**, Oneonta, N.Y., has announced receipt of a gift of securities estimated at \$160,000 for use in the construction of a residence hall for women. The gift was from the James A. and Jessie Smith Dewar Foundation of Oneonta.

- **La Verne College**, La Verne, Calif., has received a bequest of \$23,546 from the estate of Charles C. Myers. The amount has been placed in the building fund for the W.I.T. Hoover Memorial Library.

- **Denison University**, Granville, Ohio, announced the achievement of a goal of \$1,031,000 for erection of a physical education and community center. A preliminary survey had estimated that a financial goal of \$825,000 was all that might be expected.

- **Albright College**, Reading, Pa., has completed a fund raising campaign in which \$462,000 was subscribed, \$2000 more than the previously announced goal.

- **Marietta College**, Marietta, Ohio, has begun an intensified campaign to raise \$100,000 for housing by Feb. 14, 1951. This will supplement \$360,456 already contributed in the college's capital fund drive.

- **College of Puget Sound**, Tacoma, Wash., has received three gifts totaling \$150,000. Two Pacific Northwest philanthropists contributed \$100,000 toward a new music building; \$50,000 was contributed through the will of Mrs. Joseph S. Whitehouse for a scholarship fund.

- **Carleton College**, Northfield, Minn., reports a total of \$212,372 received in gifts during the fiscal year that ended June 30. The largest gift total, \$65,706, was for endowment. The next largest amount, \$54,956, was given for current expenses. The Alumni Fund, which is being applied toward the memorial student union project, has reached a total of \$40,222.

- **Kalamazoo College**, Kalamazoo, Mich., reports four gifts with a total value of \$591,000. These gifts include provisions in the will of the late Mrs. Enos A. DeWaters for residual bequests amounting to \$60,000 and an immediate bequest of \$10,000; provisions in the will of the late John D. Johnson for approximately \$450,000 to go to the college upon the expiration of several income trusts; \$1000 from the estate of the late Mrs. Bertha Stetson Arnett, and \$80,000 from the estate of

the late Ransom E. Olds, automotive pioneer. Mr. Olds was a member of the college's board of trustees for 41 years. The college also has announced the successful completion of its annual fund campaign for \$60,000.

- **Cornell University**, Ithaca, N.Y., reports receipt of a gift from Mrs. John L. Senior of Lenox, Mass., for the establishment of a professorship in "American values." The gift will be supplemented by other funds to establish an endowment of \$300,000 for a chair in memory of Mr. Senior, Cornell alumnus. The professorship is to become a pioneer effort in research, teaching and writing that will lead to a greater understanding of the heritages, traditions and freedoms of American society.

### **NAMES IN THE NEWS**

**Marvin W. Topping**, director of public relations at the Medical College of Virginia, Richmond, has been named executive secretary of the American College Public Relations Association. The organization is opening a national office in Washington, D.C., with headquarters at 726 Jackson Place.

**Dr. Cornelis W. de Kiewiet**, acting president of Cornell University since July 1949, has been appointed president of the University of Rochester. His new appointment becomes effective June 30, 1951, at which time he will become the fifth president of the University of Rochester. He will succeed **Dr. Alan Valentine**, who resigned last June and has since been named by President Truman to be administrator of economic stabilization.

**Harry S. Temple**, assistant manager of the credit department at the Northern Trust Company of Chicago, has been named comptroller of Illinois Institute of Technology, Chicago. Mr. Temple replaces **William J. Kearney**, who resigned to accept a position as comptroller of a Chicago department store.



**H. S. Temple**

**Edwin B. Hill**, president-emeritus of Hill College, Woonsocket, R.I., has returned to the administration of the college, following the recent resignation of **J. Edmund Naylor**, president. Dr. Hill had retired in 1946 after 33 years of service.

Statler Hall students  
at Cornell enjoy  
this Goodform chair

In a chair  
*Goodform*  
means  
comfort



This is Goodform  
Institutional Chair No. 4310

**I**N Statler Hall, at Cornell University, students learn Hotel Administration. Here they also learn the comfort of Goodform Aluminum Chairs, on which they sit in dining rooms, classrooms, laboratories and offices.

You, too, will like Goodform comfort—the comfort of a chair solidly built of welded aluminum, well proportioned and roomy, with shaped seat and back, generously cushioned in luxurious foam rubber.

Goodform also combines style and

beauty with rugged strength, low maintenance and long life. The welded frame stays rigid and strong, never splinters, roughens or gets rickety. The satin-smooth finish of sparkling aluminum stays bright through the years, kept clean and attractive by simple washing with soap and water.

Goodform No. 4310, shown here, is one of a complete line of fine aluminum chairs designed for institutional service. Write for a free color folder illustrating the many different

styles in Goodform Aluminum Chairs now available. The General Fireproofing Company, Department S-23, Youngstown 1, Ohio.

## GOODFORM ALUMINUM CHAIRS



## GENERAL FIREPROOFING

Foremost in Metal Business Furniture  
DEALERS THROUGHOUT THE WORLD

© GF Co. 1950

There is a complete line  
of GF metal furniture—  
desks, tables, chairs, files  
and shelving





H. J. Gezork

has been named president to succeed the Rev. Harold Wayland Tribble, who was appointed to the presidency of Wake Forest College.

Rev. Herbert J. Gezork, professor of Christian sociology and world relations at Andover Newton Theological School, Newton Center, Mass.,

Rev. Leo F. Flood, C.S.C., secretary-treasurer, King's College, Wilkes-Barre, Pa., has been named to succeed the Rev. John J. Lane, C.S.C., in the presidency. Father Lane has returned to the University of Notre Dame for extra work in research and special studies.

David F. Thornton, a graduate of Roanoke College, Salem, Va., in 1948, has been named alumni director of the college. He succeeds the late Stewart T. Hanks in that position.

Verne H. Schnee, director of the University of Oklahoma Research Institute, has been named vice president in charge of development at the university, and is the first incumbent of this position. Dr. Schnee will continue in his capacity as director of the Research Institute in addition to his new vice presidential responsibilities.



V. H. Schnee

Carl M. Franklin, executive vice president of the University of Oklahoma, has taken a year's leave of absence to complete residence requirements for a doctor of juristic science degree at Yale University.

Carol Biba of Washington, D.C., has been named director of public relations for Bryn Mawr College, Bryn Mawr, Pa. At one time in her career, she was director of public relations for the Boston Y.W.C.A., and during World War II served as public relations officer in New York for the U.S. Cadet Nurse Corps, later becoming a member of the domestic radio bureau of the Office of War Information.

Dr. John A. Perkins, assistant provost and professor of political science at the University of Michigan, has been named president of the University of Delaware. Dr. Perkins, 36 years of age, succeeds Dr. William S. Carlson, who resigned to become president of the University of Vermont.

David S. Davies, 23 years old, has been named administrative assistant to Everett Case, president of Colgate University, Hamilton, N.Y. Mr. Davies assumed his new duties October 15.

Rev. Albert E. Meyer has been named president of Concordia Collegiate Institute, Bronxville, N.Y.

Sister Margaret Mary of the Congregation of School Sisters of Notre Dame, has been named president of the College of Notre Dame of Maryland.

Dr. Daniel L. Marsh, president of Boston University, announced recently that he would retire, after 25 years of service, on February 1, the anniversary of his presidency. The university trustees voted to confer on him for life the title of chancellor of the university. Dr. Marsh, who is 70 years old, agreed to remain in office until a successor could be named but suggested that this should take place before June 30.

## Which bookkeeper would you hire?

COMPARE FOREMOST'S FEATURES	FOREMOST
Touch-method operation from the simplest type alphabetical-numerical keyboard—saves reaching for any key.	YES
Electrified keyboard for instantaneous printing and accumulation—requires fewer operator movements.	YES
Automatic new balance printing with direct subtraction in all registers—gives operating flexibility and accuracy.	YES
Automatic tabulation from one column to the next without motor burn operation—speeds posting.	YES
Automatic column selection by new "Selector Key" feature—increases accuracy and speed of distribution.	YES
Visibility of posting line and all totals—provides for easy insertion of forms, entry of previous balance and reference.	YES
Flexibility of registers and controls—permits form changes as required and use of machine for two or more applications.	YES
Your operator gets more work done because FOREMOST does more of the work.	

	Speed	Accuracy	Versatility
	fair	yes	maybe
	yes	so-so	sorry no
	yes	yes	yes!

## Which accounting machine would you buy?

Of course, you would hire the bookkeeper who produces the best work most quickly and efficiently. And you would hire her only after comparison. This is what you should do before you buy an accounting machine. Yes, we welcome a comparison on results!

For instance, look into our purchase control plan that shows you where your money is going and why...that always gives you your figures up-to-the-minute so that you can put the brakes on any wasteful trends. See how this plan gives you debit and credit analysis of purchases while giving you all your accounts payable records! See how the all-new, all-purpose Foremost accounting machine fits right into your present setup and gets work done the way you want it—even handling your receivables and payroll, too.

Get the complete story now! The sooner you act the sooner you'll save.



Phone now the Remington Rand office nearest you or write for free folder AB 455, Management Controls Reference Library, Room 1526, 315 Fourth Avenue, New York 10, New York. Compare and save money with Foremost, the Remington Rand accounting machine.

**Remington Rand**



Sexton

Quality Foods

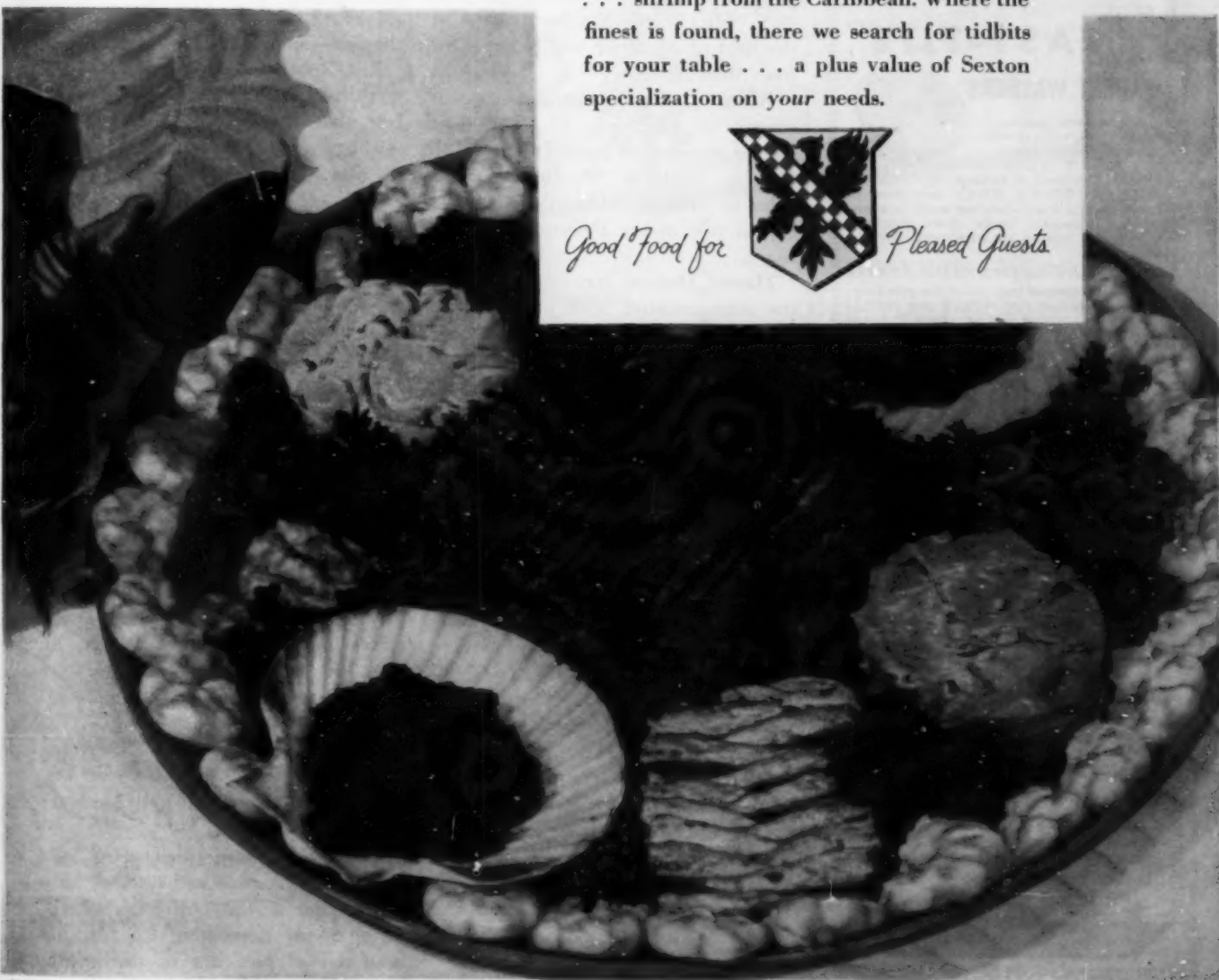
# Appetizing

"It's one world,—and it's yours to choose from" say our sea food experts . . . and prove it with this exciting array of delicacies from the seven seas. Caviar from the Black Sea . . . sardines from the Mediterranean . . . shrimp from the Caribbean. Where the finest is found, there we search for tidbits for your table . . . a plus value of Sexton specialization on *your* needs.



Good Food for

Pleased Guests



LIKE AN  
**ATOM-IC**  
EXPLOSION

Just ONE 1/32" pin-hole size faucet LEAK  
MUSHROOMS into ATOMIC WASTE  
of approximately 76,000 gallons  
of water yearly—COSTING:  
\$1013  
@ \$1 per M cubic foot

If a hot water faucet, then actual  
FUEL WASTED heating 76,000 gallons  
costs approximately:

\$27.65 if coal (7,900 lbs.)  
\$38.00 if oil (633 gals.)  
\$50.63 if gas (67,500 cu. ft.)

STOP this needless WASTE during  
today's MATERIAL and MANPOWER  
shortages with 'SEXAUER' "Easy-Tites"  
that outwear ordinary faucet washers  
6-to-1, thus SAVING labor on 5 REPEAT  
repairs, PLUS water and fuel, while  
prolonging the life of SCARCE fixtures.

PAT'D.

**"EASY-TITE"**

**FAUCET WASHERS**

...a modern labora-  
tory triumph, are  
compounded from  
du PONT NEO-  
PRENE instead of rubber—to withstand  
DESTRUCTIVE HEAT common in  
present-day super-heating water systems  
—that formerly broke down washer's  
structure (tested to withstand 300°F.).

Built like a tire with fabric  
re-inforcement they resist the grinding,  
closing squeeze that SPLIT and MUSH  
ordinary washers out of shape...caus-  
ing LEAKS.

Through combining NEOPRENE and  
FABRIC RE-INFORCEMENT their  
OUTWEAR ordinary washers 6-to-1 on  
hot or cold TAPS—thus you slash water  
fuel and labor costs.

**THE NEW 'SEXAUER' CATALOG**



Edition F, just out  
pictures over 2500  
TRIPLE-WEAR plumbing  
REPAIR parts and  
Pat'd. Precision  
Tools. It's today's  
accepted buying  
guide for discriminating purchasing and  
maintenance personnel among thousands  
of top PLANTS, INSTITUTIONS and GOVT.  
AGENCIES that rely on SEXAUER repair  
materials. Send for your copy today!

Then too, there's a SEXAUER TECHN-  
ICIAN within quick call from coast-to-  
coast, who offers a special SURVEY  
service that sets up a schedule of the  
exact replacement parts required for your  
particular plumbing fixture regardless  
of make or age and without obligation.

A postcard will bring him and your NEW  
Catalog F promptly.

J. A. SEXAUER MFG. CO., INC., Dept. U110  
2503-05 Third Avenue, New York 51.

**SEXAUER**  
WORLD'S LEADING SPECIALISTS IN  
PLUMBING AND HEATING REPAIR PARTS

as advertised in THE SATURDAY EVENING POST

## NEWS . . . . .



R. F. Chandler Jr.

Dr. Robert F. Chandler Jr., dean of the College of Agriculture of the University of New Hampshire, has been named president to succeed Arthur S. Adams.

Dr. Adams recently resigned in order to accept appointment as president of the American Council on Education. President-Elect Chandler assumes his new duties in November.

Rev. John Foster Baggett, pastor of Trinity Temple Methodist Church, Louisville, Ky., has been appointed president of Kentucky Wesleyan College, Winchester, Ky. He will succeed the Rev. Paul Shell Powell, who resigned recently.

Elwin R. Brown, vice president and director of the Elmira Association of Commerce, has been named director of admissions at Elmira College, Elmira, N.Y. Mr. Brown has been active in the field of education and business for more than 20 years.

Alden J. Carr, superintendent of schools at Hartford, Vt., has been elected president of State Teachers College at Castleton, Vt. He succeeds John C. Huden, who resigned to accept a post at the University of Vermont.

Harold Honore, former member of the administrative staff of U.C.L.A., has been named college engineer for the Associated Colleges at Claremont, Calif.

Samuel H. Beach, assistant director of placement at Columbia University, New York, has been named director to succeed Robert F. Moore, who has held that post since January 1936. Mr. Moore resigned recently to join a management consulting firm in New York City.

C. D. Byrne, for the last 18 years secretary of the Oregon State Board of Higher Education, has been named chancellor pro tem of the Oregon State System of Higher Education. He will succeed Paul C. Packer, who asked to be relieved of his duties in October in order to accept a post with the Institute of Inter-American Affairs of the State Department to direct a group of educators in Paraguay. Dr. Byrne is reported to have refused to accept the appointment as a permanent one for personal reasons.

William H. Mandrey, former president of Arnold College for Hygiene and Physical Education, Milford, Conn., has been named president of New England College at Henniker, N.H. He succeeds Laurie D. Cox, recently retired.



W. H. Mandrey

Dr. Clyde E. Wildman, president of DePauw University, Greencastle, Ind., since 1936, has announced his retirement, effective June 30. His retirement is due to ill health.

Lester J. Ruegsegger has been named to the position of comptroller and business manager of Kansas Wesleyan University, Salina, Kan.

Dolph Camp, formerly supervisor of guidance services, Arkansas State Department of Education, has been named to succeed Charlie S. Wilkins as president of Agricultural and Mechanical College at Magnolia, Ark.

Rev. Robert H. Sweeney, C.S.C., vice president of the University of Portland, has been named president, according to a recent announcement by the Rev. T. J. Mehling, C.S.C., provincial of the Indiana Province of the Priests of Holy Cross. Father Mehling, whose headquarters are at the University of Notre Dame, also announced that the Rev. William S. Scandlon, C.S.C., former vice president at King's College, Wilkes-Barre, Pa., has been named vice president of the University of Portland.

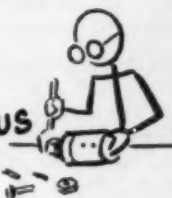
Dr. Henry T. Heald, president of Illinois Institute of Technology, Chicago, recently announced the appointment of three vice presidents. They are: Dr. John T. Rettaliata, 39, dean of engineering, who has been named vice president for academic affairs; Raymond J. Spaeth, 43, executive secretary and treasurer, who becomes vice president for business affairs and continues as treasurer, and Dr. Haldon A. Leedy, 40, director of Armour Research Foundation of Illinois Institute of Technology, who becomes vice president of the foundation and continues as director.

Andrew Stewart, director of the school of commerce and dean of business affairs at the University of Alberta, South Edmonton, Canada, has been named president of the institu-

# The New AMPRO Stylist 16 MM SOUND PROJECTOR Is a Teacher's Dream Come True!

DEAR TEACHERS

YOU DON'T NEED  
YOUR SCHOOL'S  
HALFBACK TO CARRY IT  
OR  
YOUR SCHOOL'S  
MECHANICAL GENIUS  
TO RUN IT...



WEIGHS ONLY 29 LBS. COMPLETE  
...you can carry it from room  
to room with ease.

A 12-YEAR-OLD STUDENT CAN RUN  
IT. Sets up in seconds and  
simple centralized controls  
make it a cinch to operate.

NO MORE TORN FILMS... foolproof  
threading and Ampro's patented  
film "cradle" eliminates film  
damage.

**You'll Agree! Never Before So Many Quality Features  
in a Precision 16mm Projector Priced So Low!**

Easy to carry! Easy to set up! Easy to thread! Easy to operate! Truly  
everything a teacher ever dreamed of in a projector—that's the  
wonderful Ampro Stylist!

Hailed as the projector that's 10 years ahead of the times, the  
amazing Stylist shows silent films or "talkies." Pictures are crystal-  
clear—easy on the eyes. Sound is true-to-life. You'll discover that  
students learn more faster—remember it longer—  
and enjoy learning the Ampro Stylist way.

A comparison by your School  
Board will show the Stylist to  
have all the high precision—  
give all the fine performance of  
\$500.00 projectors. Yet the  
revolutionary Stylist costs only

**\$375<sup>00</sup>**  
COMPLETE



**AMPRO CORPORATION**  
(General Precision Equip. Corp. Subsidiary)  
8mm Cameras and Projectors  
16mm Sound-on-film  
Slide Projectors  
Tape Recorders



## BOOST AUDIENCE CAPACITY OF STYLIST PROJECTOR

Ampro Power Speaker Model 690 converts  
the Stylist from a Classroom projector  
so it can be used in large auditoriums.  
Powerful 12" Permanent Magnet speaker;  
easy-carrying  
handle; hand-  
some luggage-  
type case.

**\$109<sup>75</sup>**  
COMPLETE



## MAIL COUPON . . . WRITE NOW!

Ampro Corporation,  
2835 N. Western Ave., Chicago 18, Ill.  
Rush me FREE illustrated literature on the amaz-  
ing Ampro Stylist Projector for school use . . .  
also folder on Ampro Model 690 Power Speaker.

Name.....

Address.....

City..... Zone..... State.....

## NEWS. . . . .

tion. He has been a member of the faculty at the university since 1935.



S. H. Rickard

**Samuel H. Rickard**, formerly president of Judson College at the University of Rangoon in Burma and more recently a member of the staff in the development program of Massachusetts Institute of Technology, has been named vice president of Kalamazoo College, Kalamazoo, Mich. He will have special responsibility for the developmental program of the college, looking toward the 125th anniversary of the college in 1958.

**Very Rev. Carl M. Reinert, S.J.**, has been named president of Creighton University, Omaha, Neb. He will succeed the **Very Rev. William H. McCabe, S.J.**, who is assuming new duties in the department of English at Marquette University, Milwaukee.

**Elmer Hutchisson**, dean of the faculty at Case Institute of Technology, Cleveland, has been named acting president to serve during the leave of absence granted to **T. Keith Glennan** for service as a member of the Atomic Energy Commission.

**Percy W. Christian**, formerly president of Pacific Union College, Angwin, Calif., has been named to succeed **Alvin W. Johnson** as president of Emmanuel Missionary College at Berrien Springs, Mich. Dr. Johnson has been elected secretary of the department of religious liberty of the general conference of the denomination.

**Very Rev. Thomas J. Murray, S.J.**, has been named president of Loyola College, Baltimore. He will succeed the **Very Rev. Francis Xavier Talbot, S.J.**

**Rev. John J. Kelly, O.S.A.**, formerly dean of men, Augustinian College of the Merrimack Valley, Andover, Mass., has assumed new duties as president of the Catholic University of Saint Thomas, Villanueva, Havana, Cuba.

**Dr. Robert E. Doherty**, president-emeritus of Carnegie Institute of Technology, Pittsburgh, died October 19 in Scotia, a suburb of Schenectady, N.Y. Dr. Doherty was en route from his home in Winter Park, Fla., to Pittsburgh, where he was to attend the inauguration of **Dr. J. C. Warner**, his successor as president of Carnegie.

## DIRECTORY OF ASSOCIATIONS

### Association of College and University Business Officers

#### Central Association

President: John K. Selleck, University of Nebraska; secretary-treasurer: C. C. De Long, University of Illinois.

#### Eastern Association

President: H. R. Patton, Carnegie Institute of Technology; secretary-treasurer: Irwin K. French, Middlebury College, Middlebury, Vt.

Convention: December 3-5, Royal York Hotel, Toronto, Canada.

#### Southern Association

President: Jamie R. Anthony, Georgia Institute of Technology; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

#### Western Association

President: Elton D. Phillips, University of Southern California; secretary-treasurer: James M. Miller, University of California. Convention: May 1951, Santa Barbara, Calif.

#### American Association

President: W. A. Hamilton, Lincoln University; secretary: L. H. Foster Jr., Tuskegee Institute.

Convention: May 7 and 8, Virginia State College, Petersburg, Va.

### Association of College Unions

President: Duane E. Lake, University of Nebraska; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

Convention: April 25-28, Michigan State College, East Lansing.

### Association of Physical Plant Administrators of Universities and Colleges

President: E. J. Behler, Yale University; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

Convention: May 14-16, University of Oklahoma, Norman.

### American College Public Relations Association

President: Stewart Harral, University of Oklahoma; secretary-treasurer: James W. Armsey, Illinois Institute of Technology, Chicago.

### College and University Personnel Association

President: Boynton S. Kaiser, University of California; secretary-treasurer: Ruth Harris, University of Illinois.

### National Association of College Stores

President: Ralph Stilwell, UCLA; executive secretary: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

Convention: April 29-May 2, Columbus, Ohio.

### National Association of Educational Buyers

President: Rev. J. Leo Sullivan, S.J., College of the Holy Cross; executive secretary: Bert C. Ahrens, 45 Astor Place, New York, N.Y.

Convention: May 2-5, Statler Hotel, Detroit.

## WANT ADVERTISEMENTS

### POSITIONS WANTED

**Business Administration**—Attorney seeks position in a college or large school; A.B., and L.L.B. Degrees; 12 years' active legal practice, including corporate and tax matters; salary secondary. Write Box CW18, COLLEGE AND UNIVERSITY BUSINESS.

**Business Manager**—Thoroughly trained; now assistant business manager large urban private university; late thirties; married; Master's Degree; proven record of cooperation and ability; \$8,000 minimum. Write Box CW19, COLLEGE AND UNIVERSITY BUSINESS.

**Resident Architect**—Well qualified, registered architect; sketches, working drawings, specifications, contracts, supervision for repairs, alterations and new construction; allied duties; supervision of maintenance; east of Chicago and north of Tennessee and North Carolina preferred. Write Box CW17, COLLEGE AND UNIVERSITY BUSINESS.

**College Business Manager or Treasurer**—Experienced accountant with public and private accounting experience; internal auditing and office management; also able to serve a college Music Department as organist. Write Box CW20, COLLEGE AND UNIVERSITY BUSINESS.

### POSITIONS OPEN

**Dining Hall Director**—For 450-man dormitory cafeteria in sunny southwest; ability to plan meals; supervise meal preparation and food personnel, and radiate cheer essential; position starts from now to February 1. Write Box CO35, COLLEGE AND UNIVERSITY BUSINESS.

**Architect or Architectural Draftsman**—In mid-western university planning department; graduation from Architectural School or equivalent experience necessary; employment available at once. Write Box CO36, COLLEGE AND UNIVERSITY BUSINESS.

The rates for want advertisements are:  
10 cents a word; minimum charge, \$2.50.

Address replies to

**COLLEGE AND UNIVERSITY BUSINESS**

919 N. Michigan Avenue, Chicago 11, Ill.

# New...

## TOLEDO Profit-Angle SLICER



Now—Toledo brings to restaurant kitchens the new TOLEDO Profit-Angle Slicer... with a new profit slant on slicing! Designed with clean-lined beauty... does the full range of slicing jobs faster... more accurately... and with greatest ease of operation. Meat carriage has ample capacity for bulky items. Gravity-type feeding makes it easy to slice soft foods such as tomatoes, without waste or smearing. The Toledo is *clean* and easy to keep clean. Full choice of slice thicknesses... 75 gauge settings... all thicknesses up to  $\frac{3}{4}$ ". All surfaces in contact with food are either stainless steel or anodized aluminum. Many more *plus* features to help *reduce kitchen costs!*

*Exclusive Toledo Quick-Weigh Estimator*... saves time, saves steps. In determining portions there's no need to step to the scale each time. Portions can be estimated right on the slicer—subject only to final checking on the portion scale.

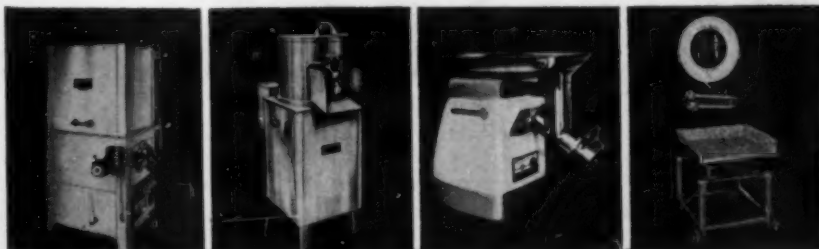
*Exclusive Illuminated Platter*... when motor is turned on light automatically illuminates platter... also serves as safety signal that motor is operating.



ILLUMINATED  
PLATTER

QUICK-WEIGH  
ESTIMATOR

### SEND COUPON!



Today it's **TOLEDO** all the way!

DISHWASHERS • PEELERS • CHOPPERS • PORTABLE SCALES

TOLEDO SCALE COMPANY  
Toledo 1, Ohio

Please send without obligation your bulletin 3775 giving full details on the new Toledo Profit-Angle Slicer.

NAME \_\_\_\_\_

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

# Modern Instruments



## FOR *Modern* INSTRUCTION

- Self Shielded
- High Accuracy
- Easy to Read

Modern Weston instruments bespeak the progressive spirit that welcomes refinements while retaining that which has been proved basically sound. These matched Model 901 portables, for example, incorporate incomparable Weston movements, housed in rugged, ribbed bakelite cases with curved wide-angle windows. By eliminating side shadows, this distinctive style of unbreakable window enhances scale illumination even under difficult lighting conditions.

Instruments in the Weston Model 901 matched group are self shielded against external magnetic fields . . . are accurate within  $\frac{1}{2}$  of 1% . . . tolerate wide fluctuations in temperature. They are available as d-c voltmeters, ammeters, milliammeters or microammeters; as a-c rectifier type voltmeters; and as a-c voltmeters, ammeters, milliammeters. Further details are given in Circular A-22-B, available through your Weston Representative—or from Weston Electrical Instrument Corporation, 704 Frelinghuysen Avenue, Newark 5, New Jersey . . . makers of Weston and Tagliabue instruments.

# WESTON

*Instruments*



## Prepares Hundreds of Standard Dishes Better, Faster, Safer . . . at LOWER COST

Any institutional, hotel, or restaurant kitchen can save enough time and eliminate enough waste with this machine to write off its cost many times. At the same time, menus can be more varied; food will be more attractive in appearance and richer in flavor.

In just a few seconds this powerful cutter will blend and cut a twenty pound batch of food ingredients to any degree of fineness. There is no mashing or burning, no squeezing or drying. All natural juices are retained in raw or cooked vegetables, meat, fish, clams, nuts and similar constituents.

A special self-emptying device saves additional time and prevents waste. Above all it assures safety, for the operator never needs to reach into the bowl. All parts in contact with food are heavily tinned to prevent corrosion and facilitate cleaning. Many special attachments are available to add to versatility and usefulness. Write for complete details or call your Kitchen Equipment Dealer.

## Other BUFFALO Kitchen Equipment . . .

Bench or pedestal food cutters with 7 pounds to 25 pounds bowl capacity. Bench or pedestal vegetable slicers and slicing attachments for food cutters. Bread slicers—hand or electrically operated. Ice-Cream Slicers and Potato-Chip Slicers.

► **WRITE FOR ILLUSTRATED LITERATURE ON BUFFALO EQUIPMENT**

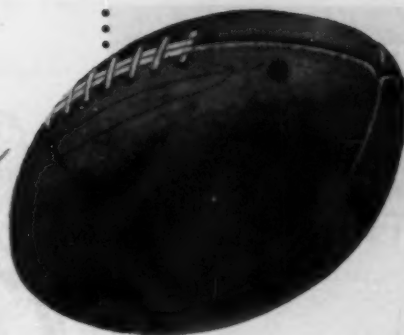


**JOHN E. SMITH'S SONS CO.**

50 BROADWAY • • BUFFALO 3, NEW YORK

Sales and Service Offices in Principal Cities

# Catch it!



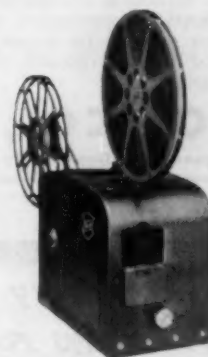
**you can**—as expertly as Red Grange ever caught a pigskin—with Bell & Howell cameras!

Because B&H cameras are built to come through in the toughest situations—to record surely, accurately, brilliantly, every bit of that fast action that's gone in the wink of an eye!

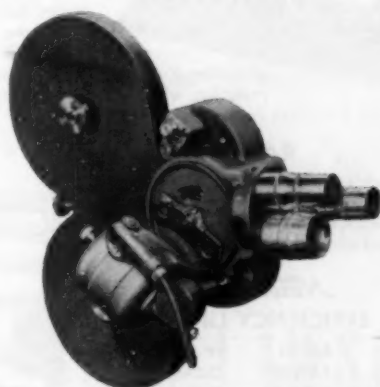
And to match the showing with the taking—to give your screen action the same crisp detail that's on the film—a matching B&H projector is a must!



**70-DE Camera.** Shoots fastest action accurately. Three-lens turret head with matching positive viewfinders. Seven governor-controlled speeds. Critical focuser, rewind knob, hand crank.



**Single-Case Filmosound.** 16mm projector for sound and silent films. Full, natural sound at any volume level. Brilliant, steady pictures. Compact, easy to carry. Precision-built for long, trouble-free service.



**70-H Camera.** Versatile, accurate, easy to use, has all 70-DE features. Takes electric motor and external magazines. Change 400-foot magazines between quarters for complete coverage of the game.



**Diplomat 16mm Silent Projector.** Run continuously or analyze each single frame of action—study lost motion. Heat filter and excellent ventilation give brilliant still as well as motion pictures.

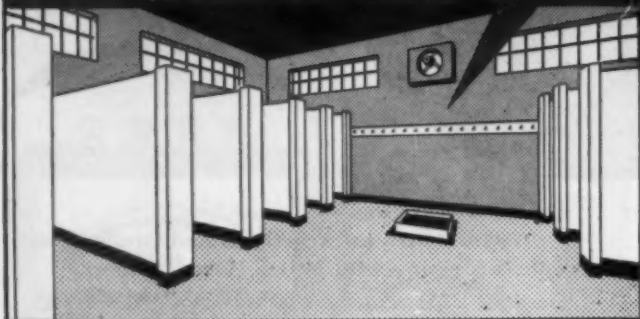
You buy for life when you buy

## Bell & Howell

Chicago 45

**Guaranteed for life.** During life of product, any defects in workmanship or material will be remedied free (except transportation.)

## Eliminate paint problems in locker and shower rooms!



Wherever you have paint problems due to moisture, they can be solved completely and economically with RAMUC<sup>®</sup> MILDEW-PROOF ENAMEL. Made especially for the purpose, this long-lasting enamel has a waterproof, chlorinated rubber base that withstands continuous exposure to steam and hot water — never blistering, peeling or fading.

Mildew-proof, easy to clean!

Furthermore, RAMUC contains a special fungicide that actively prevents the formation of mildew and eliminates musty, unsightly growths. Its hard, tile-like finish makes cleaning easy, too. Scrubbing and caustics will never dull RAMUC's smooth, sparkling appearance. And because one application lasts for season after season, you enjoy real dollar savings! For full information, write for Folder #582, today! \*Trademark

### INERTOL CO., INC.

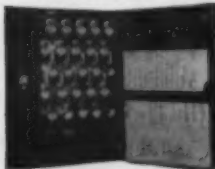
480 Frelinghuysen Ave., Dept. C, Newark 5, N. J.



**MOORE KEY CONTROL\***  
**OFTEN PAYS FOR ITSELF**  
**IN LESS THAN 2 YEARS!**

You owe it to yourself to investigate this modern system of key control. It saves money year in and year out by eliminating expensive repairs and replacement of locks and keys. What's more, it guarantees security, convenience and privacy. No wonder Moore Key Control is used throughout schools, institutions, hospitals, industry, government, transportation, communications, housing . . . wherever keys are used. Send for details today!

nience and privacy. No wonder Moore Key Control is used throughout schools, institutions, hospitals, industry, government, transportation, communications, housing . . . wherever keys are used. Send for details today!



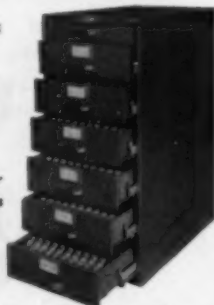
**COMPLETE SYSTEMS  
FOR EVERY NEED**

Wall cabinets of  
every size  
from \$27.45 up



Drawer  
file cabinets

Section of a typical  
control panel



**TELKEE**  
TRADE MARKS

Mail Coupon  
today for  
Free Booklet

P. O. MOORE, INC., Dept. C-2  
300 Fourth Ave., New York 10, N. Y.  
Please send booklet, "The Missing Link," describing MOORE KEY CONTROL.  
Name.....  
Address.....  
City, State.....



LABORATORY, LIBRARY  
AND VOCATIONAL FURNITURE  
CAFETERIA EQUIPMENT  
SODA FOUNTAINS

**WALRUS**  
MANUFACTURING COMPANY  
DECATUR ILLINOIS

If your college or university  
needs are not listed on the blackboard,  
write to Walrus anyway, for prices and  
specifications. Fixtures and equipment  
of many kinds are included in Walrus  
catalog sheets, available on request.

**WALRUS MANUFACTURING COMPANY**  
DECATUR, ILLINOIS

## For Efficient Film Handling

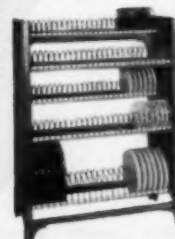


### MOTOR REWINDS

Model PD-1 saves time, labor. Equipped with ball bearing, power-driven motor, throw-out clutch for reversing and brake-end geared hand  
rewinder. Foot controlled. Mounted on acid-resisting white enameled panel—40" x 13". A sturdy, complete unit.

### RACKS AND CABINETS

Neumade's de luxe storage equipment is offered in a complete line of handsomely finished steel cabinets and racks to preserve and protect your film.



### Neumade EFFICIENCY LINES

REELS CABINETS CANS  
RACKS TABLES REWINDS  
SPLICERS CLEANERS SHIPPING CASES

Write Today for Free Fully Illustrated Catalog Dept. 108B

Est.  
1916

**Neumade**  
PRODUCTS CORP.  
330 W. 42nd St., New York 18, N. Y.

## ***WHAT IS A COLLEGE PRESIDENT?***

Well, mostly, he's the man who does the worrying.

If the head of the Science Department is seriously concerned by the lack of adequate equipment, he passes on his concerns to the President.

If the dormitories are obsolescent and hazardous, the President is the man who takes the problem home with him at night.

If an old gymnasium is hampering athletic activities, he's the one who tries to figure out how to get a new one.

### **And a lot of his worries are worries that money would cure.**

We think we can help to lift that burden of worry with experienced counsel and examination of your institution's financial needs.

There never was a time in the history of our nation when people had more money to contribute to worthy educational causes.

- More people are gainfully employed than ever before—61 million.
- More people are paid more wages than ever before.
- Cash dividend payments by corporations are at a record level.
- There's more disposable income, an all-time high of 195.5 billions.
- And with all the spending, savings remain enormous—people saved 11 billions in 1950 and there was a past accumulation of 175 billions.
- Private enterprise is more than holding its own. There are 3,925,000 operating businesses. The failure rate of business is only half the rate for the past 50 years.

NOW is the time to tap this great source of money which your institution needs.

Competent professional advice and campaign direction by Lawson Associates may be the answer to your problem.

Why not write today for information about our services. There's absolutely no obligation. Just write to Department B-12 and an illustrated brochure, "Fund Raising" will accompany the answers to any questions you may have.

## **B. H. LAWSON ASSOCIATES, INC.**

**ROCKVILLE CENTRE, N. Y.**



"The greatest ball carrier in the country, coach . . . and he was going to sign up with our deadly rivals until I told him all our shower baths were equipped with Powers Thermostatic Shower Mixers".

\*\*\*\*\*

With the  
**DOUBLE Safety**  
of

**POWERS** Thermostatic



**SHOWER MIXERS**  
bathers can **RELAX**  
and **ENJOY** the best  
showers they ever had

Regardless of (1) temperature or (2) pressure changes in water supply lines, a Powers thermostatic mixer holds the shower temperature constant. Failure of cold water instantly and completely shuts off the shower.

**Why be "Half-Safe"** with mixers that only protect bathers from scalding caused by pressure changes. No mixer is really safe or non-scald that does not give **double** protection against both pressure and temperature changes in water supply lines . . . plus a **complete** shut off on cold water failure.

**Only one moving part**, easily accessible from the front. Parts subject to wear have hard chromium finish. Minimum of maintenance assured by simple rugged construction. **FBC**

----- **WRITE FOR CIRCULAR H48 AND PRICES** -----

**THE POWERS REGULATOR CO.** 2706 No. Greenview Ave., Chicago 14

☐ Please send Circular H48 and prices ☐ Have engineer call to give estimate

NAME \_\_\_\_\_ TITLE \_\_\_\_\_

SCHOOL OR COLLEGE \_\_\_\_\_

ADDRESS \_\_\_\_\_

# VISIBILITY



...in **MICHAELS**  
**DISPLAY CASES**

Michaels "Time-Tight" Cases not only offer maximum visibility, but actually accentuate the beauty of exhibits. These cases are made of extruded bronze or aluminum, and are outstanding in appearance and quality. Innerlocking frames, an exclusive Michaels feature, prevent handling and theft, and reduce the amount of dusting necessary to keep exhibits clean. Cases are made in several styles; there are table cases, wall, aisle, suspended and recessed cases in sizes to meet every requirement. Michaels numbers among its customers many colleges and universities. Write for fully illustrated booklet.

MUSEUM CASE DIVISION OF

**The MICHAELS ART BRONZE CO., Inc.**  
**COVINGTON, KENTUCKY**

Manufacturers since 1870 of many products in Bronze,  
Aluminum and other Metals

You're lucky to have  
such a quiet school

It isn't luck!.. It's  
our **FIBRETONE\***  
Acoustical Ceilings



**IMPORTANT!** You can now get Fibretone Panels with flame-resistant finish. They meet requirements for slow-burning tests as per Federal Specification SSA-118a . . .



Fibretone Acoustical Panels are easily, quickly installed over new or existing construction.

THOUSANDS AND THOUSANDS of "noise traps" to help *end* harmful noise—that's the secret of Johns-Manville Fibretone Ceilings for classrooms, corridors, and all noise centers.

Each 12"-square unit of Fibretone contains hundreds of small cylindrical holes drilled in the sound-absorbing material. As sound waves strike the ceiling, they enter the holes where the sound energy is dissipated.

In a classroom 23' x 35', for instance, you'd have 389,620 of these ingenious *noise traps*, constantly functioning to trap and dissipate irritating, unnecessary noise.

Fibretone is attractively *pre-decorated*, can be painted and repainted, and is designed to meet the most modest budget. Available with flame-resistant finish if desired.

Other J-M Acoustical Ceilings include Transite\*, made of asbestos; and Sanacoustic\*, perforated *metal panels* backed up with a fireproof sound-absorbing material. For a prompt estimate, or free book on "Sound Control," write Johns-Manville, Box 290, New York 16, N. Y.

\*Reg. U. S. Pat. Off.



**Johns-Manville**

J-M Acoustical Materials include Sanacoustic\*, Asbestos Transite\*, and drilled Fibretone\*

Free on request



Insurance Company of North America has prepared a booklet which will assist you to review your responsibilities as a Trustee.

Court decisions are cited in the booklet defining trustee responsibility for the preservation of properties, funds and assets. It explains the important role that insurance plays in protecting you in the proper discharge of your responsibilities, both legal and moral.

See any Agent of one of the North America Companies for your free copy. If you do not know who he is, write us, and we'll be glad to introduce you.



Insurance Company of  
**North America**  
Companies, Philadelphia

Insurance Company of North America      Indemnity Insurance Company of North America  
Philadelphia Fire and Marine Insurance Company

**DURABLE**  
AND  
*Smart*  
**FURNITURE**

AMERICAN  
CHAIR COMPANY



**Wall-Saving  
Easy Chair**

No. 8027-1

For prices and complete information on furniture for dormitory, dining hall, library and student lounge, see your dealer or write us. Dept. C.

Design by  
Colin Campbell McLean

**AMERICAN**  
CHAIR COMPANY  
MANUFACTURERS  
SHEBOYGAN, WISCONSIN

## Hasco CAFETERIA TABLE and CHAIRS



### Hasco Plastic Top TABLES

Natcolite Top Colors: Red, Blue, Tan Natural and Solid Black.

	Each	Lot of 12
MA326 ... 24x24	\$15.65	\$15.25
MA326A 24x42	23.60	22.75
MA326B 30x30	21.50	20.75
MA326C 34x34	28.55	27.55
MA326D 30x42	28.05	27.05
MA326E 30x48	32.65	31.65

Packed and Sold 2 to a carton

F.O.B. Md. Factory

SPECIFY WOOD Finish and COLOR of Top.

Tables are thoroughly kiln dried lumber, finished either Honey Maple or Walnut.

Tops are cigarette proof, stain-proof, chip-proof, heat resistant as well as alcohol proof.

### Hasco ALL-PURPOSE CHAIR

No. MA640

\$8.50 Each

\$8.25 Ea. in Box. Lots Specify Wood finish and Color of Upholstery desired

Packed and Sold 2 Chairs to a Carton F.O.B. Penn. Factory



WRITE FOR  
GENERAL  
CATALOG  
OF COMPLETE  
LINE OF  
FURNITURE

SERVING INSTITUTIONS FOR OVER 25 YEARS



**HAROLD**  
SUPPLY CORPORATION  
100 Fifth Avenue, New York, N.Y.

19

*Performance-  
Proved*

**HERRICK**  
REFRIGERATORS



WITH  
**STAINLESS  
STEEL  
EXTERIORS  
AND  
INTERIORS**

HERRICK gives you complete food conditioning, plus stainless steel inside and out. HERRICK stainless steel is not a plated finish, but a solid metal. It will not chip, crack or peel. It is impervious to food acids. For the ultimate in beauty, sanitation and permanence, insist on a HERRICK Stainless Steel refrigerator. Write for name of nearest supplier.

**HERRICK REFRIGERATOR CO. • WATERLOO, IOWA**  
DEPT. C COMMERCIAL REFRIGERATION DIVISION

**HERRICK** *The Aristocrat of Refrigerators*

can  
you  
guess

what  
this  
is?\*

There are times when **NO**  
guess is good enough!

**That's right!** If you're going to get the best possible facilities for your laboratory or science-room budget, guesswork just won't do. • And if you're like 4 out of 5 school administrators responsible for laboratory planning, you'll eliminate guessing completely by consulting a *professional* laboratory equipment manufacturer. For the experience these *professional* manufacturers have gained equipping thousands of modern school laboratories will help you get better facilities at less cost. • You'll also learn that appreciable savings can be secured by having your laboratory equipment specifications separated from the specifications covering general construction, and by requesting competitive bids on this equipment *directly* from *professional* laboratory manufacturers. Yes, you'll save dollars and days by following these three simple, logical steps to better laboratory planning—**1.** Call in a *professional* manufacturer of laboratory equipment before final specifications are drawn up. **2.** Have the specifications covering laboratory equipment either separated from the general building specifications or, if made part of the general building specifications, have them included as a separate section to permit direct bidding to contractors or owner by *professional* laboratory equipment manufacturers. **3.** Secure prices on laboratory equipment directly from *professional* manufacturers of these materials.

#### IS THIS LABORATORY EQUIPMENT FOLDER IN YOUR FILES?

It was designed for you and contains a variety of authoritative information on laboratory planning. If you have not received a copy, write for yours today!



LABORATORY EQUIPMENT SECTION

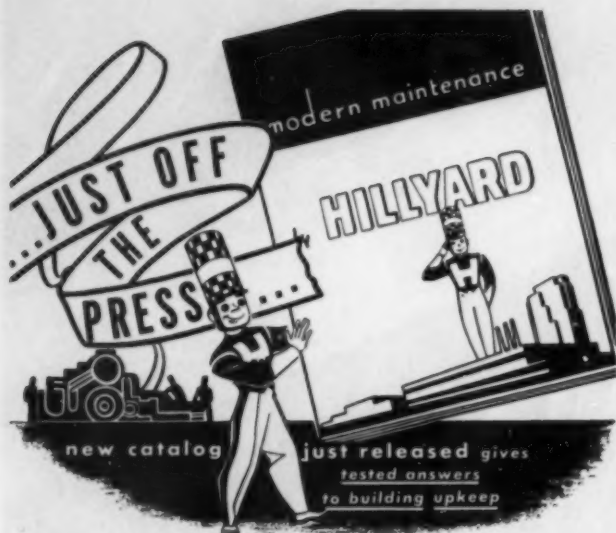
**SCIENTIFIC APPARATUS MAKERS' ASSOCIATION**

20 NORTH WACKER DRIVE • CHICAGO 6, ILLINOIS

© 1950, S.A.M.A.

\* Greatly enlarged photo of — that's right — a pencil sharpener!

There are mighty good reasons why 4 out of 5 schools are equipped by *professional* laboratory manufacturers



Here, compiled under one cover, is everything you want to know about floor treatments, building maintenance, sanitation, custodial training. MODERN MAINTENANCE, Hillyard's new catalog contains a gold-mine of practical guidance, latest information available, in the field of ceiling to floor maintenance.

This book was designed to HELP YOU plan a low-cost maintenance program—to keep your buildings in "better than ever" condition at all times.

Destined to become a "bible" of the industry . . . MODERN MAINTENANCE by HILLYARD will prove to be a profitable reference.

**Contains "how-to" guidance on every phase of building maintenance, floor treatment, sanitation**

- ...how to save 50% on cleaning costs
- ...how to reduce slipping accidents in your building
- ...how to select proper machines, equipment, to speed particular jobs.
- ...how to keep down dust
- ...how to remove paint and varnish without tedious sanding and scraping
- ...how to refinish a gym for non-slip, no-glare play
- ...how to protect your investment in expensive floor installations
- ...how to treat wood floors for traffic safety
- ...how to reline a basketball court
- ...how to seal terrazzo and cement against water, dirt, traffic wear.



St. Joseph,  
Missouri

**MAIL COUPON For your FREE COPY**

Dear Sirs: Please send me a copy of Hillyard's new catalog, "Modern Maintenance", just off the press. I understand there is no charge.

Name.....

Building Address.....

City..... State.....

# COMFORT

and GOOD POSTURE  
go HAND-IN-HAND with

## NORCOR

TUBULAR DESKS and CHAIRS



ADVANTAGES  
OF  
**NORCOR**  
Tubular Desks  
and Chairs



**FLEXIBLE  
ARRANGEMENT**



**CHAIRS CAN BE  
USED INDEPENDENTLY**



**MINIMUM  
FLOOR SPACE**



**FREEDOM FOR  
FOOT MOVEMENT**



**LIGHTWEIGHT  
EASILY MOVED**

Growing bodies entrusted in your care need all the assistance you can give them to grow straight and strong. NORCOR Tubular Desks and Chairs are not only built to withstand the rigors of daily classroom use, but are also designed for good posture with comfort—so that pupils sit at ease and alert—receptive to the task at hand.

These sturdy units combine maximum strength with light weight, permitting flexible informal classroom seating arrangements, as well as ease of movement for floor cleaning purposes. They are built in a complete range of sizes.

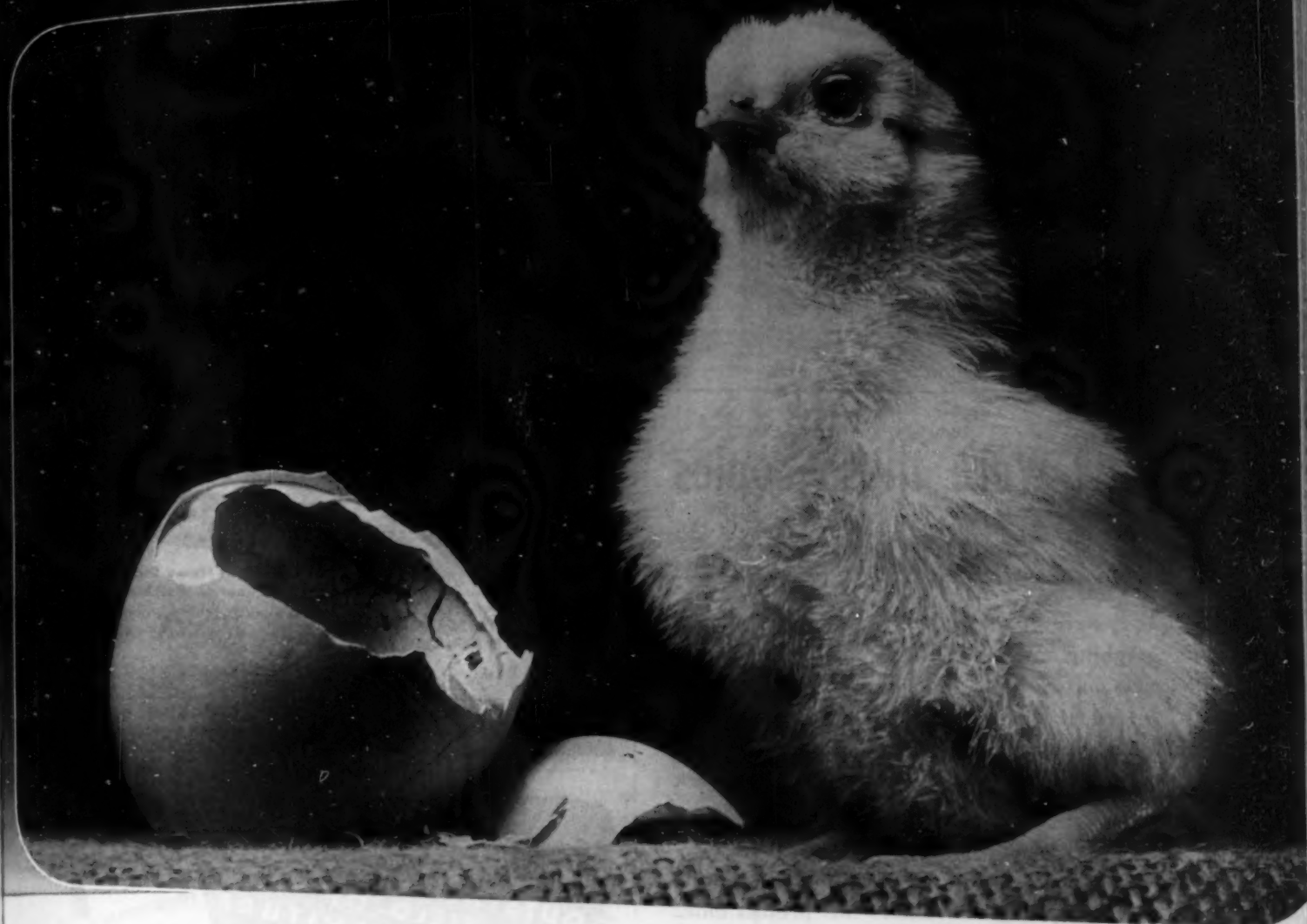
**FREE**—Circular describing good posture requirements of school seating with description of Norcor Line of school seating.

*The* **NORCOR** *Line*

"Twenty Five Years of Good Seating"

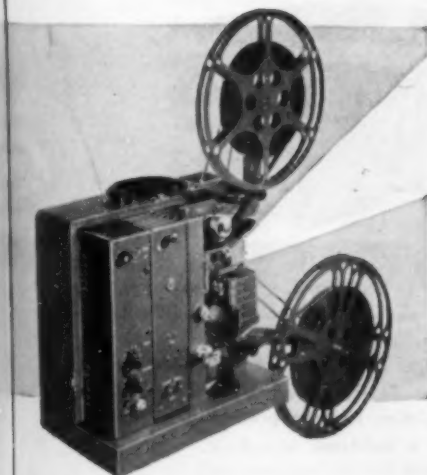
NORCOR MANUFACTURING CO. • GREEN BAY • WISCONSIN

**CONTRAST . . . for Lifelike Quality!**



**COMPARISON PROVES YOU GET  
THE FINEST 16mm Projection with the**

*RCA "400"*



**Compare THE PICTURE!** Screen images are more realistic because the light output of the RCA "400" produces the greatest range in contrast between the brightest highlights and the deepest shadows. Pictures are clear and crisp to the corners and edges of the screen . . . they are steady and sharp under the largest magnification.

**Compare THE SOUND!** You'll hear voices, music and sound effects reproduced with the dramatic realism and tone shadings of theatre-like sound.

**Compare THE QUALITY!** The RCA "400" is a precision-made projector, specifically designed to give years of dependable service at the professional show level. It meets all the requirements for school and church class-

room use, as well as the needs for mobile showings of films by business, industrial and civic organizations.

**The RCA "400" is your best buy!** Add to these features—simplicity of threading . . . ease of operation . . . portability . . . maximum protection to films—and it's plain to see why the RCA "400" is the finest 16mm projector you can buy at any price. We'll be glad to send you illustrated literature and name of your nearest dealer. Write Department 108K.

**RCA "400" JUNIOR.** The only single-case standard 16mm sound projector of fully professional quality.

**RCA "400" SENIOR.** Provides theatre-quality reproduction of 16mm sound and pictures for larger audiences, auditoriums or larger rooms.

*First in Sound... Finest in Projection*



**RADIO CORPORATION of AMERICA**

**EDUCATIONAL SERVICES,**

**CAMDEN, N.J.**



## How were these copies made?

They were *mimeographed*! Yes, MODERN mimeographing now actually reproduces printing type faces and intricate drawings—and still is unchallenged for over-all economy. Now add a host of other bonus features. For example, duplicating in 4 or more colors at one time . . . two-sided work on thinner paper . . . mimeographing on almost every kind of paper and card stock.

Such *extra* versatility over and beyond routine mimeographing now makes this process more useful than ever. For a free portfolio of MODERN mimeographing samples and full facts, send the coupon. Do it . . . write now! Learn how you can save through MODERN mimeographing with A. B. Dick products—for use with all makes of suitable stencil duplicating products.



**A·B·DICK**  
THE FIRST NAME IN MIMEOGRAPHING

A. B. DICK COMPANY, Dept. CU-1150  
5700 W. Touhy Ave., Chicago 31, Ill.

With no obligation to me, please send free portfolio of samples and full facts about MODERN mimeographing.

NAME \_\_\_\_\_

COLL. or UNIV. \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

## DAV-SON

### The Standard of Bulletin Board Quality

**Dav-Son Cork Back Bulletin Boards For Pinning Up Announcements, Photographs, Letters, etc.**

- Indoor and Outdoor Styles
- Hardwood or Metal Frames
- With or Without Locking Glass Doors
- Many Sizes in Stock



**Dav-Son Changeable Letter Directories For Lobby, Office or Outdoor Use.**

- Wide Variety of Styles and Sizes
- Glass Enclosed Front
- Hardwood or Metal Frames
- Highest Quality Felt Background in Choice of Several Colors
- Many Letter Styles and Sizes

### INFORMATION

**Dav-Son Name Plates For Desk, Door or Wall Mounting**

- Choice of Matching Wood Bases
- Names May Be Changed at Low Cost

**WRITE TODAY FOR FULL PARTICULARS AND PRICES**

**A.C. DAVENPORT & SON, INC.**

ESTABLISHED 1922  
311 N. DESPLAINES ST., CHICAGO 6, ILL.

MANUFACTURERS OF BULLETIN BOARDS FOR EVERY NEED



From coast to coast, leading schools recognize Peterson's reputation for quality furniture for laboratory, home making and library departments. What ever your requirements may be, call on Peterson's experts for an economical solution to your problems . . . No obligation is incurred.



**LEONARD PETERSON & CO., INC.**

1228 FULLERTON AVENUE . . . . . CHICAGO 14, ILLINOIS

*Look to*

# SIMMONS...

*for Furniture and sleep equipment*

**Used by hotels, tourist courts, clubs, schools, colleges, rest and convalescent homes, institutions of all kinds**

Bring to Simmons your plans for furnishing new rooms or modernizing old ones! Simmons' complete line of fireproof steel furniture in 20 color and wood grain finishes, offers you far more opportunity to select equipment for comfort, color harmony, maximum utility, long life and economy.

Simmons furniture and sleep equipment are patterned to modern demands, whether it is room furniture for the finest hotels, or hospital equipment to speed recovery. The ablest designers, engineers and color stylists are employed. Products are brutally tested in laboratories for structural flaws, and use-tested for guest or patient approval!

Shown here are only a few products from Simmons' complete line. Many more are pictured and described in the catalogs offered. It will pay you to have these catalogs on your desk. They're free—so send for them today!

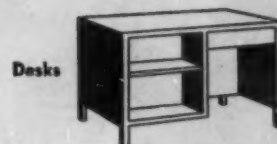
## SIMMONS COMPANY

**Display Rooms:**

Chicago 54, Merchandise Mart • New York 16, One Park Avenue  
San Francisco 11, 295 Bay St. • Atlanta 1, 353 Jones Ave., N. W.



Beds and chests



Desks

Van-D-Dressers

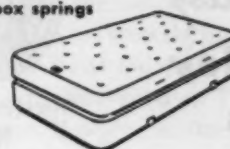


Hospital beds

Dormitory beds and bunks



Mattresses and box springs



Chairs



Hide-A-Bed Sofas



Simmons Company,  
Merchandise Mart Plaza, Chicago 54, Illinois.

Please send us your.....Hospital Equipment  
catalog:.....Guest Room Catalog.

Name.....Title.....

Business.....

Address.....

City.....State.....



GRILLAGE  
used with  
reinforced  
concrete  
columns.

another great university...  
uses **SMOOTH CEILINGS SYSTEM**  
in their building program



GRILLAGE  
used with  
structural  
steel  
columns.



**Ohio State  
University  
LIBRARY  
ADDITION**

### CHECK THESE OUTSTANDING ADVANTAGES

- Eliminates flared column heads, drop panels and beams to reduce concrete form work.
- Permits easy low cost equipment installation.
- Finishing costs reduced with smooth flat surfaces.
- Speeds construction time with fewer forming operations.

**WRITE FOR COMPLETE DETAILS NOW!**

### SMOOTH CEILINGS SYSTEM

Metropolitan Life Bldg., Dept. G, Minneapolis, Minn.



## Everybody likes Dudley protection

Principal, teacher, pupil, custodian, all appreciate the timesaving convenience of Dudley Locks on all school lockers.

The Dudley Master Key or Master Chart permits quick opening of any locker, by an authorized person... and keeps locker control in authorized hands.

#### Extra Security

This unique Master Key can't be duplicated on commercial key-cutting machines. Duplicates are available only from Dudley.



**Master-Charted  
RD-2**

**Master-Keyed  
P570**



## DUDLEY LOCK CORPORATION

570 West Monroe St., Dept. 1122, Chicago 6, Ill.

Write for Catalog Folder with complete data on the padlocks shown here and on built-in S-540, the combination lock that features a 15-second combination change.

# Checker

## This Modern Steel Rack

**Accommodates 50  
in 5 Feet!**



Keep wraps aired and in press—save space... lengths to fit in anywhere. Individual coat rack units for self-service or complete Check-room layouts with the "One Check" numbering system. Six, 12, and 24 place costumers. Combination rack and locker units or complete locker rooms.

Checker equipment is widely used in schools, public buildings and institutions. Stand-ard with leading architects.

Stationary—Portable. Write for Bulletin No. CK25.



**VOGEL - PETERSON CO.**  
624 So. Michigan Ave., Chicago 5, Ill.

# magnesium

**FOR LIFETIME SERVICE!**

**Big, Comfortable Chairs**

*That fold*



**MODEL 482  
MAGNESIUM**

FOLDS  
FLAT

Beautifully styled, light, easy to move, upholstered in Naugahyde, bonded rubber cushions. Die-cast Magnesium frames and patented folding mechanism assure great strength for long service.

Look like conventional chairs, but fold compactly for storage.

Ask for catalog showing complete line of wood and Magnesium models.



## LOUIS RASTETTER and SONS CO.

1326 WALL STREET • FORT WAYNE 1, INDIANA  
ESTABLISHED 1881 • FINE FURNITURE THAT FOLDS



## Three more colleges adopt CROTTY BROTHERS DINING HALL SERVICE

This Fall 3 additional schools opened with Crotty Brothers Food Service...the simple solution to their dining hall problem.

A tried and proven service, this provides a complete Crotty-trained staff that functions as a school unit under administrative direction...assuring excellent food, economical operation and much needed continuity of responsible management.

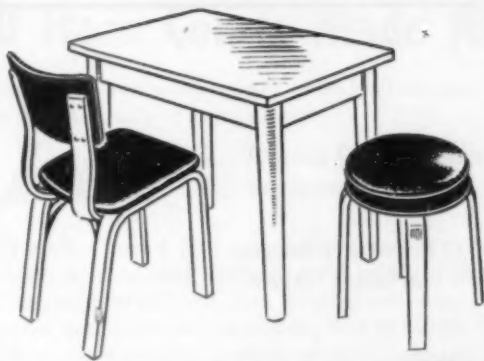
Decide now to modernize your student feeding operation...save time, trouble and expense beginning next semester. Write for the Crotty Plan today to

**CROTTY**  
BROTHERS INC.

OPERATING IN 18 STATES AND 45 CITIES

137 NEWBURY STREET, BOSTON 16, MASS.  
111 WEST WASHINGTON ST., CHICAGO 2, ILL.  
303 SOUTHLAND ANNEX BLDG. DALLAS, TEX.

FOOD SERVICE MANAGEMENT SINCE 1930



### bentply... AT PRINCETON

Attractively designed Thonet chairs, tables and stools lend themselves to clever planning, practical usage—and meet the most rigid tests for durability. Write today for illustrations and detailed information on Thonet Bentwood and Bentply furniture.

THONET INDUSTRIES INC., DEPT. H-11 ONE PARK AVENUE, NEW YORK 16, N. Y. • SALES OFFICES: NEW YORK • CHICAGO • STATESVILLE, N. C.



**THONET**  
INDUSTRIES INC.



Princeton University, Princeton, New Jersey • Thonet Chair 1216, Table 3118, Stool 8418

## Choose these fine Liquid Soaps FOR YOUR LAVATORIES AND SHOWER ROOMS

DOLGE is proud of its reputation for producing the very highest quality liquid soaps, and invites comparison on any basis—clarity, brilliance, rich lather, pleasant aroma. DOLGE soaps will not irritate the skin; will not turn cloudy or rancid even on prolonged storage.



A truly top-quality liquid soap, unsurpassed for clarity, brilliance and rich, soil-removing lather. Its pleasant, delicate scent is derived from fine perfume like that used in the most luxurious cake soaps.



Combines the fine qualities of BALMA with the antiseptic Hexachlorophene (G-11). Regular shower use sharply reduces bacterial count on skin and provides a remarkably efficient deodorant action for round-the-clock body freshness.

Dispensers available in several types

Have your DOLGE SERVICE MAN demonstrate these outstanding soaps. . . . Write for detailed literature.



## REALOCK *is Tamper-proof*



Maximum protection for your grounds and property is assured when Realock Fence stands guard against trespassing, vandalism and other hazards. Realock Fence gives you *tamper-proof* protection—that's because essential fittings are designed to permit the removal of bolts from the inside only.

Stoutly constructed of steel wire, heavily galvanized, Realock Fence is weather-resistant, extra durable and practically maintenance-free. Furnished without barbed wire, if desired. Write for free estimate.

### REALOCK FENCE



WICKWIRE SPENCER STEEL DIVISION 361 Delaware Ave., Buffalo 2, N.Y.  
THE COLORADO FUEL & IRON CORP. Continental Oil Bldg., Denver 2, Col.  
THE CALIFORNIA WIRE CLOTH CORP. 1080 - 19th Avenue, Oakland 6, California  
BRANCHES & DISTRIBUTORS IN KEY CITIES EVERYWHERE

## LOOKING FOR SOMEONE?

Someone to fill a vacancy in your staff—a Business Manager—Superintendent of Buildings and Grounds—Purchasing Agent—Director of Food Service and Dormitories?

Or maybe you are thinking about making a change.

If so, consider placing a "Want Advertisement" in the next issue of College and University Business.

It costs but 10c a word (minimum charge of \$2.50) to place your story before the administrative officers of colleges and universities in this country and Canada.

"Want Advertisements" are working successfully for others—they can do the same for you.

WRITE TO: **Want Advertisements**

**COLLEGE and UNIVERSITY BUSINESS**

919 N. MICHIGAN • CHICAGO 11, ILLINOIS



Precision methods insure perfect levels in screeding Laykold Surface Course.



Multiple squeegee applications of Laykold Wearcoat give perfect seal with uniform texture.

## OLD Hard Courts Made NEW

Both rigid and bituminous types of old all-weather courts can be economically resurfaced with:

- Laykold**
1. Tennis Court Binder
  2. Wearcoat

Laykold Binder mixed with aggregates is used to level the worn surface, removing puddles and establishing a true plane. Laykold Wearcoat then adds a uniform, resilient, all-weather seal in attractive Green, Red or Black. The final result gives the essential qualities of a full Laykold or Grastex Court—with big economy in first cost and maintenance.

Before building new courts or resurfacing old—send for these booklets. Ask for our specifications and free counsel.



### IN THE WEST—

**STANCAL ASPHALT & BITUMULS COMPANY**  
200 BUSH STREET • SAN FRANCISCO 4, CALIF.

Los Angeles 14, Calif. • Oakland 1, Calif. • Portland 7, Ore. • Tucson, Ariz.

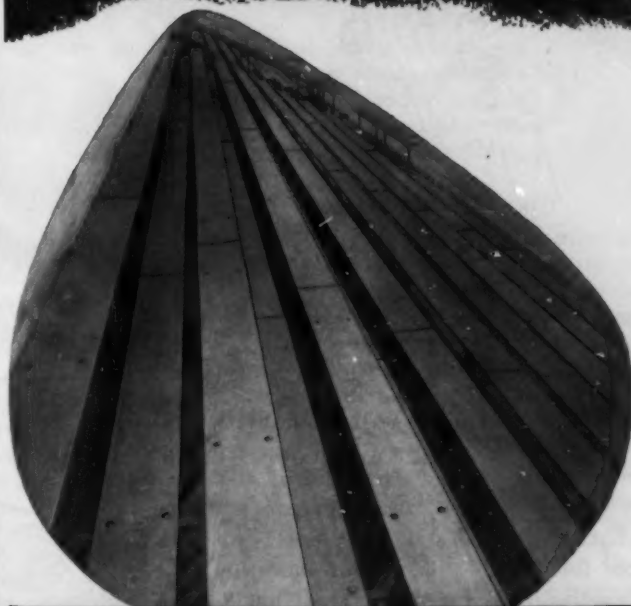
### IN THE EAST—

**AMERICAN BITUMULS COMPANY**

200 BUSH STREET • SAN FRANCISCO 4, CALIF.

Washington 6, D.C. • Baltimore 3, Md. • Perth Amboy, N.J. • E. Providence 14, R.I.  
Columbus 15, Ohio • St. Louis 17, Mo. • Baton Rouge 2, La. • Mobile, Ala.  
San Juan 23, Puerto Rico

For MAXIMUM Seating Facilities



and MAXIMUM Usable Floor Space



## SPECIFY *Universal* FOLD-A-WAY GYMNASIUM STANDS

Custom built to fit individual requirements, *Universal* Fold-A-Way Stands provide all the advantages of permanent installations at much lower costs... and when not in use, they may be folded away, leaving spacious additional areas for practice courts, physical education and other activities. For example, the 10-row stands illustrated above occupy 17' 6" depth when in use, but fold back to a depth of only 3' 8". That means nearly 80% of the seating space can be converted into *usable* floor space whenever needed! Scientifically designed for the utmost in safety, strength, and adaptability, *Universal* Folding Stands are compact, yet roomy and comfortable... afford perfect visibility... provide ample space for folding chair storage, too. Complete catalog and descriptive literature free on request. Write today.

**Universal**  
**BLEACHER COMPANY**

606 SOUTH NEIL STREET • CHAMPAIGN, ILLINOIS

Bleacher Experts for Over 30 Years



Know the ***Exact Cost*** of  
each meat portion you serve?

You do when you serve Armour Fresh Frosted Meat Specialties. And you can keep those portion costs down, too, because the meat is already prepared.

Each Armour portion is *pre-cut*. No need for you to trim, cut or fabricate.

Each portion is *uniform* in size. They're measured accurately to assure you exact figuring of portion costs.

These Armour meats are *quick frozen*. You can order way in advance and still be sure of meat at its "peak" of freshness and flavor when you serve it.

Armour Fresh Frosted Meat Specialties do not need to be defrosted before using.

They're packed for easy handling—easy storage. The specially designed packages protect the quality of the meat and allow portions to be removed easily.

Take advantage of the complete line of Armour Fresh Frosted Meat Specialties! Order today from your Armour Salesman or mail this coupon.

MAIL THIS COUPON TODAY!

.....  
CUB 11-50

ARMOUR AND COMPANY  
Hotel and Institution Department  
Chicago 9, Illinois

Please send me a complete listing of Armour Fresh Frosted Meats for consuming outlets.

Name.....

Address.....

City..... Zone..... State.....

**ARMOUR**  
**AND COMPANY**

Hotel and Institution Department  
General Offices • Chicago 9, Illinois



Pork Steaks  
50 3-oz. portions per 10-lb. box



Hamburger Patties—4-lb. rolls  
2, 3 and 4-ounce patties



Beef Roll Steaks  
50 3-oz. per 10-lb. box



Veal Roasts, Oleo Dipped  
4—8 and 8—12-lb. avg. 50-lb. boxes



Beef Steakettes  
10-lb. box, 80 2-oz. Steakettes



Veal Cutlets—10-lb. box  
50 3-oz. cutlets per box



Pork Chops—3 and 4-oz. portions  
10-lb. box



Sliced Beef Liver—one complete  
liver, sliced and ready to use

# WHAT'S NEW

November 1950

Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 88. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

## Tape Recorder



The new Model 731 magnetic tape recorder introduced by Ampro has a 5 by 7 inch speaker with output jack for auxiliary speaker. Ear phones are also available for transcription. Features of the new model include tone control, foot treadle attachment for dictating, fast stop and start, and a complete set of accessories. Two full hours of recording can be made on the 7 inch dual track tape and provision is made to keep the tape from falling off the reels when reels are filled. Motor rewind reverses a 7 inch tape in 4 minutes. Manual rewind can be used if desired.

The overall size of the new model is 8 by 12 inches. It is a compact unit, weighing 17 pounds. The recorder cannot erase accidentally and offers high fidelity and a wide frequency range for quality performance. **Ampco Corporation, Dept CUB, 2835 N. Western Ave., Chicago 18. (Key No. 849)**

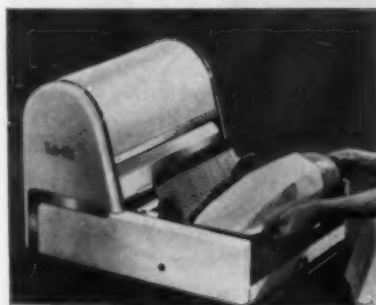
## Uni-Flo Grille

The new Barber-Colman Uni-Flo fixed fin Model EF supply grille is designed for use with ventilating or air conditioning systems. A turbulent action is imparted to the supply air by diffusion fins, thus minimizing drafts and producing rapid temperature equalization. The grilles have a large free area for low noise level and minimum pressure drop and are designed for efficient operation. The attractively designed frames are drilled for mounting screws to facilitate installation. The grilles are ruggedly constructed to withstand hard use and are available in a wide range of sizes, finished in a gray prime coat or electroplated metal. **Barber-Colman Co., Dept. CUB, Rockford, Ill. (Key No. 850)**

## Vitachrome Flooring

A new line of resilient tile flooring has recently been introduced under the name Vitachrome. The new line is a grease resistant, plastic-asbestos, resilient tile designed especially for use in cafeterias, kitchens and other food serving areas since it is not affected by animal and vegetable fats and has high resistance to alkali. Vitachrome is available in a wide variety of sizes and in 10 marbled colors and 5 plain colors designed for feature strip and accent purposes. **The Tile-Tex Division, The Flintkote Co., Dept. CUB, Chicago Heights, Ill. (Key No. 851)**

## Bread Slicer



Cutting speed is controlled automatically in a new improved bread slicing machine so that hard-crust loaves are not shattered and soft breads are not crushed. The U. S. Model MB Slicer has electric-powered, saw-type blades which cut down through the loaf from the top. A single control starts the slicer which then operates automatically. The motor stops when the loaf is sliced. The slicer handles all kinds of soft and hard-crust breads of any length up to 15½ inches. It is finished in baked-on white enamel. **U. S. Slicing Machine Co., Inc., Dept. CUB, La Porte, Ind. (Key No. 852)**

## Rust Inhibiting Paint

Certified Rust Inhibitor No. 425 is a new rust inhibiting oil base paint designed to provide both rust prevention and finish coat in one application. The paint can be applied to damp surfaces as well as to dry, penetrates rapidly through the rusted surface, instantly expelling moisture from beneath, is re-

sistant to fumes, salt air and weather and may be applied to new metal or to that which has already rusted. The product withstands dry heat up to 500 degrees F. and is available in several colors. **United Laboratories, Inc., Dept. CUB, 16801 Euclid Ave., Cleveland 12, Ohio. (Key No. 853)**

## Folding Chairs

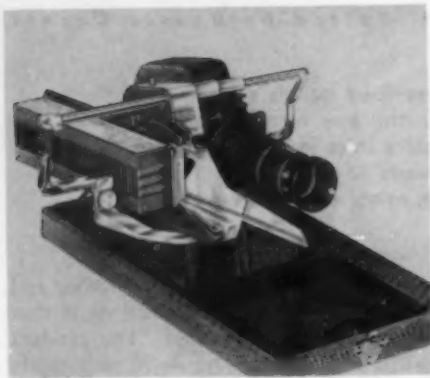
The "Folding Forties" series of folding chairs made by American Seating Company has been replaced by the new and improved "Folding Fifties" series which has been redesigned for greater comfort and stability. The new chairs employ the Y-type tubular steel construction for even distribution of the occupant's weight which makes them exceptionally stable. Because of the design the chairs cannot tip forward when occupied.

The new chairs have wider, deeper shaped seats and wider, deeper formed back panels for greater comfort. There are no sharp edges to catch or tear clothing and the folding mechanism is foolproof and designed to prevent finger-pinching. The chairs are available in three models: the No. 53 All-Steel; the No. 54 with a strong, lacquered plywood seat, and the No. 56 with a leatherette upholstered seat. All models have metal parts finished in baked enamel. They are light in weight, easy to store and have replaceable rubber shoes to protect floors. All-metal clamps for uniting "Folding Fifties" in sections of two or



three, one inch apart, are available. **American Seating Co., Dept. CUB, Grand Rapids 2, Mich. (Key No. 854)**

### Slide Carrier



Fitting all GoldE Manumatic projectors, as well as eleven other GoldE 2 by 2 inch slide projectors, the new GoldE Index Automatic 2 by 2 inch Slide Carrier gives fully indexed operation. It is precision engineered and tested and permits the showing of 40 slides in glass, metal, plastic or paper binders, in any sequence. The unit can go forward, backward or skip one or more slides as desired.

The GoldE Vis-A-File feature permits changeable slide descriptions on a pressure sensitive panel, thus ensuring positive identification of each slide. Precision gears permit accurate framing of each slide and permanently engraved numbers on the Index Slide File in two places make for instantaneous identification of the slide and easy selectivity. The carrier is designed for trouble-free operation. GoldE Mfg. Co., Dept. CUB, 1220 W. Madison St., Chicago 7. (Key No. 855)

### Stadium-Type Chair

Designed for maximum comfort, the new stadium-type chair developed by Ideal Seating Company is durably constructed for hard usage. It has been so engineered as to eliminate all tearing and pinching hazards and can be furnished for either floor or riser installation. The wood slats in the back and seat come in natural color or with durable enamel finish and the iron standards are finished in gray baked enamel. The chair is equipped with ball bearing hinges and rust resisting hardware and is designed for use in arenas, field houses and stadiums. Ideal Seating Co., Dept. CUB, 531 Ann St. N.W., Grand Rapids, Mich. (Key No. 856)

### Lightweight Floor Machine

Designed for use in small or medium sized buildings, the new Lite-12 floor machine is a versatile unit for scrubbing, waxing, polishing and steel wooling all kinds and types of floors by attaching one of several quickly interchangeable brushes. The machine is balanced for

easy operation and maneuverability and the brush speed is regulated at 175 r.p.m. to ensure proper polishing and non-splatter scrubbing. The brush spread is 12 inches.

The new machine has an over-all height of only 10 1/8 inches when the brush is attached, thus permitting its use under desks, seats and other furniture. A rubber bumper around the base of the machine protects furniture and baseboards as well as the machine itself. The handle swings in a 90 degree arc for easy storage. The machine is light in weight, powered by a quiet, 13 h.p. motor and operates on 115 volt AC. Multi-Clean Products, Inc., Dept. CUB, 2277 Ford Pkwy., St. Paul 1, Minn. (Key No. 857)

### Plastic Tableware

Prolon Ware is a new line of plastic dinnerware made of Melmac, said to be the hardest synthetic known. The dishes are molded by the Pro-phy-lac-tic Brush Company and are designed to reduce breaking, cracking, chipping and staining to a minimum. Study and research



resulted in the development of a new "Prolon Glaze" which is used on the line to increase resistance to wear, chipping and discoloration as well as to provide a smooth, high luster finish.

The Prolon Ware line contains seventeen items most used in food service. Cups, bowls and other pieces are made in the thickness and weight determined as most satisfactory by a series of service tests in colleges and hospitals where the dinnerware was in experimental use for six months. Prolon Ware is available in green, blue, yellow and buff and is distributed by Parker D. Perry, Inc., Dept. CUB, 729 Boylston St., Boston 16, Mass. (Key No. 858)

### Automatic Fire Alarm

A penetrating, five minute warning is automatically sounded by the new Buffalo Fire Alarm when temperature reaches 135 degrees. The alarm requires no electricity or maintenance, is simply installed and self-contained. It is an automatic wind-up unit which gives instant positive warning at the outbreak

of a fire. Special heat fuses are available if temperature limits other than 135 degrees are desired.

The wind-up mechanism is rustproof and stays energized until excessive temperature releases the heat-sensitive fuse or until the fuse is unscrewed slightly to check the alarm. The unit can be quickly mounted on the ceiling or wall and is designed for indefinite service. If the alarm has sounded due to a fire, a new fuse is easily inserted, the mechanism re-wound and the alarm is ready for the next emergency. Buffalo Fire Appliance Corp., Dept. CUB, Dayton 1, Ohio. (Key No. 859)

### Plastic Relief Map

A second edition of the plastic relief map of Northeastern United States is now available. Bounded by Rochester, New York and Sanford, Maine, at the north and by Roanoke, Virginia, at the south, the map extends from about 36 to 43 degrees latitude and from 68 to 78 degrees longitude. It is formed in durable washable Vinylite plastic and graphically shows the relation of the land and submarine topography of the northeast coast. It is lithographed in six colors to indicate the various features, is grommeted at the top so that it can be hung easily from three small nails and weighs only 1 1/2 pounds. Aero Service Corp., Dept. CUB, 236 E. Courtland St., Philadelphia 20, Pa. (Key No. 860)

### Detector Kit

Designed for physics classes, the new Knight "Scout" is a low-priced, portable radioactive ore detector in kit form. It is easily put together and the completed unit may be used for demonstration of radiation and for safety checks in radiation laboratories. The unit is compact and lightweight, is easily assembled and has an aluminum case finished in gray



hammerloid. Allied Radio Corp., Dept. CUB, 833 W. Jackson Blvd., Chicago 7. (Key No. 861)

## Product Literature

- **Wayne Type "H" portable steel grandstands** are presented in a folder issued by Wayne Iron Works, Wayne, Pa. Details of design and construction are fully described and illustrated and complete specifications and a table of dimensions are included. The inexpensive portable steel grandstand is available in several variations. (Key No. 862)
- **"Here's the Simple, Safe, Sure Way to Plan and Purchase Laboratory Facilities"** is the title of a file type folder issued by the Laboratory Equipment Section of the Scientific Apparatus Makers Association, 20 N. Wacker Drive, Chicago 6. The inside cover of the folder gives three experience-proved steps to better laboratory planning and the folder is designed to help the administrator and his department heads concerned with the laboratory to accumulate helpful material on laboratory planning in one file. The folder contains a most informative booklet on the subject together with loose sheets picturing actual laboratories. The material has been prepared by the Scientific Apparatus Makers Association which is composed of many leading companies manufacturing and distributing scientific apparatus and laboratory equipment. (Key No. 863)
- **Kaylo Laminated Panels**, a "sandwich" product two inches thick with faces of cement-asbestos board and an inorganic core of Kaylo insulation, are illustrated and described in a new 12 page booklet recently published by the Kaylo Division, Owens-Illinois Glass Co., Toledo 1, Ohio. Designed to provide efficient, permanent curtain walls or interior partitions, the new panel material is light weight, strong, insulating and has an incombustible core. The booklet illustrates use of the material and carries four pages of detail drawings. (Key No. 864)
- A new folder on **Loxit System of Floor Laying** has recently been released by Loxit Systems, Inc., 1217 W. Washington Blvd., Chicago 7. **Catalog F.L. 1950** is a comprehensive text of information on the Loxit system complete with descriptive text, technical drawings illustrating the features of the system and its operation, specifications and general data on other Loxit products. (Key No. 865)
- A booklet entitled **"Improve Record Controls and Reduce Costs"** has been issued by Herring-Hall-Marvin Safe Co., Hamilton, Ohio. The 20 page treatise is a well illustrated exposition of the natural filing facilities provided by the new line of H-H-M Rotary Record Files and holds to the practical theme of improving record controls and reducing costs. (Key No. 866)
- **"Your Lighting Simplified"** is the title of a new booklet recently issued by The Edwin F. Guth Co., 2615 Washington Ave., St. Louis 3, Mo. This "buyer's guide" gives information on proper selection and purchase of lighting equipment and outlines a new type of lighting system with reduced maintenance costs. (Key No. 867)
- The 1950-51 edition of **"Marble Forecast"** is now available from the Marble Institute of America, Inc., 108 Forster Ave., Mount Vernon, N.Y. Containing full data on the availability of foreign and domestic marbles, the booklet also lists the membership of the Marble Institute. (Key No. 868)
- **"New Ideas on Plant Sanitation and Maintenance"** is the subject of a booklet by J. Lloyd Barron, C. E., Sanitary Engineer and Manager, Sanitation Dept., National Biscuit Co., New York, and released by G. H. Tennant Co., 2530 N. Second St., Minneapolis 11, Minn. The 16 page booklet includes specific answers to questions on maintenance and sanitation, is fully indexed and lists commonly asked questions with reference pages indicated where the answer is provided. (Key No. 869)
- The redesigned line of **Thelco Ovens and Incubators** offered by Precision Scientific Co., 3737 W. Cortland St., Chicago 47, is described and illustrated in **Bulletin 376** recently released. Increased working space, lower cost and other features of the redesigned line of constant temperature laboratory ovens are discussed. (Key No. 870)
- **"Calgon Controls Corrosion"** is the title of a new folder offered by Calgon, Inc., Hagan Bldg., Pittsburgh 30, Pa. Information in the folder describes and illustrates the "Threshold treatment" for protecting water systems against general corrosive attack and for controlling corrosion of hot water systems. (Key No. 871)
- A new 16 page catalog has been published by The F. J. Stokes Machine Co., 5900 Tabor Rd., Philadelphia 20, Pa., covering **"Stokes Automatic Water Still."** The catalog describes Stokes water stills from 1/2 to 100 gallons per hour capacity. (Key No. 872)
- The new line of **National Unit Heaters** is described in **Catalog No. 75** recently published by The National Radiator Co., Johnstown, Pa. Printed in two colors, the catalog gives full information on selecting size and type of unit heaters and presents operating quietness level table, basic steam and hot water capacities of units and output tables for steam pressures other than normal and for varying hot water flows and temperatures. (Key No. 873)
- **"How to Simplify Your Files and Filing Systems"** is the title of a new 40 page booklet issued by Remington Rand Inc., 315 Fourth Ave., New York 10. The booklet charts the life cycle of a file, beginning with the origin of a record, progressing through indexing, filing, charge-out and retention or transfer of the record, including the use of microfilming equipment. (Key No. 874)
- **"Guide to Lighting Educational Institutions"** is the title of a new 52 page handbook recently released by Holophane Company, Inc., 342 Madison Ave., New York 17. The title page states that this handbook has been "prepared to assist educators, architects, engineers and all concerned with lighting for teaching." The general principles of educational lighting are discussed in an introductory section and the book contains authoritative data and practical recommendations for every educational lighting need. It is illustrated with over 175 photographs, drawings and plans. Thirty-four specific plans, with lighting layouts drawn in color, are used to indicate the solution of problems in administration areas, various types of teaching areas, research areas, sports areas, assembly areas and service areas. Special lighting functions are discussed. The handbook carries installation photographs, lighting layouts and illumination levels data together with optical, electrical and mechanical specifications and catalog information on Holophane lighting equipment. (Key No. 875)
- A comprehensive catalog of **"Incandescent Unified Lighting"** has been published by The Art Metal Co., 1840 E. 40th St., Cleveland 3, Ohio. The catalog contains full data needed to specify and use incandescent lighting equipment. In addition to illustrations of each product, there are cross section details, light distribution curves, coefficient and utilization tables and complete product specifications. The 46 page catalog is also carefully indexed for quick reference. (Key No. 876)
- Information on the **Welch Densichron** for science, industry and the graphic arts is given in a booklet recently issued by W. M. Welch Scientific Co., 1515 Sedgwick St., Chicago 10. In addition to the descriptive data and illustrations, the booklet contains a number of charts indicating operation of the Densichron. (Key No. 877)
- How your institution can be protected against damage which results from electric power failures is discussed in a booklet, **"When Power's Off . . . You're Safe!"** recently released by D. W. Onan & Sons Inc., Minneapolis 5, Minn. Known as the Standby Folder, A-277, it presents full information on the new Onan Standby Generator. (Key No. 878)



## Assured Protection



### *The Legge System of Safety Floor Maintenance*

Successful management recognizes the importance of creating a favorable impression. Your floors are under constant observation...and use... day in and day out, by customers...visitors...employees. Beautifully polished, spotless floors *that are safe to walk on* provide *assured protection* for everyone at all times.

Only with the Legge System of Safety Floor Maintenance and Legge Safety Polishes and Cleaners, can you get all three qualities... **BEAUTY... CLEANLINESS... SAFETY.** Also Legge Safety Engineers will create a specific floor-care program, free of charge, for users of Legge Safety Floor Products. Use the coupon below to get your free copy of "Mr. Higby Learned About Floor Safety" and start now to give your floors *assured protection*.

.....  
 • Walter G. Legge Company, Inc. CC-1  
 • 101 Park Avenue, New York 17, N.Y.  
 • Please send me my free copy of "Mr. Higby Learned  
 • about Floor Safety."  
 • I want *assured protection* for my floors.

• NAME \_\_\_\_\_ TITLE \_\_\_\_\_  
 • COMPANY \_\_\_\_\_  
 • ADDRESS \_\_\_\_\_  
 • FLOOR AREA \_\_\_\_\_ SQ. FT. TYPE \_\_\_\_\_  
 • .....

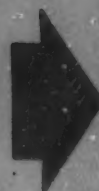
**LEGGE SYSTEM**  
*of Safety Floor  
 Maintenance*

**Walter G. LEGGE Company, Inc.**

Architects' Bldg., 101 Park Ave., New York 17, N.Y.  
 Branch Offices in Principal Cities.  
 In Canada, J. W. Turner Company, Toronto.

Copyright 1950 by Walter G. Legge Co., Inc., N.Y.

# PRODUCT INFORMATION



## Index to "What's New"

Pages 85-87

### Key

849 Ampro Corporation  
Tape Recorder

850 Barber-Colman Co.  
Uni-Flo Grille

851 The Tile-Tex Division  
Vitachrome Flooring

852 U. S. Slicing Machine Co.  
Bread Slicer

853 United Laboratories, Inc.  
Rust Inhibiting Paint

854 American Seating Co.  
Folding Chairs

855 GoldE Manufacturing Co.  
Slide Carrier

856 Ideal Seating Co.  
Stadium-Type Chair

857 Multi-Clean Products, Inc.  
Lightweight Floor Machine

858 Parker D. Paury, Inc.  
Plastic Tableware

### Key

859 Buffalo Fire Appliance Corp.  
Automatic Fire Alarm

860 Aero Service Corp.  
Plastic Relief Map

861 Allied Radio Corp.  
Detector Kit

862 Wayne Iron Works  
Portable Grandstand

863 Scientific Apparatus Makers Assn.  
Laboratory Equipment File

864 Owens-Illinois Glass Co.  
Kaylo Laminated Panels

865 Loxit Systems, Inc.  
Catalog F.L. 1950

866 Herring-Hall-Merwin Safe Co.  
"Improve Record Controls"

867 The Edwin F. Guth Co.  
"Your Lighting Simplified"

868 Marble Institute of America, Inc.  
"Marble Forecast"

### Key

869 G. H. Tennant Co.  
"Plant Sanitation and Maintenance"

870 Precision Scientific Co.  
Bulletin 376

871 Calgon, Inc.  
"Calgon Controls Corrosion"

872 F. J. Stokes Machine Co.  
Catalog

873 The National Radiator Co.  
Catalog No. 75

874 Remington Rand Inc.  
"Simplify Your Files"

875 Holophane Company, Inc.  
Lighting Handbook

876 The Art Metal Co.  
"Incandescent Unified Lighting"

877 W. M. Welch Scientific Co.  
"Welch Densichron"

878 D. W. Onan & Sons Inc.  
"When Power's Off"

USE THIS  
CARD



*This card is detachable and is  
provided for your convenience  
in obtaining information on all  
items advertised in this issue.  
See reverse side.*

FIRST CLASS  
PERMIT NO. 126  
SEC. 249 P. L. & R.  
CHICAGO, ILL.

BUSINESS REPLY CARD

No Postage Stamp Necessary if mailed in the United States

2 CENTS POSTAGE WILL BE PAID BY

COLLEGE AND UNIVERSITY BUSINESS

919 NORTH MICHIGAN AVENUE

CHICAGO 11, ILLINOIS

# Index to Products Advertised

Key	Page	Key	Page	Key	Page
879 Adams & Westlake Company Aluminum Windows .....	11	899 Harold Supply Corporation Cafeteria Furniture .....	74	919 Neumade Products Corporation Film Equipment .....	70
880 American Bitumuls Company Tennis Court Resurfacing .....	83	900 Hauserman Company, The E. F. Movable Steel Interiors .....	57	920 Norcor Manufacturing Company Tubular School Furniture .....	76
881 American Chair Company Easy Chair .....	74	901 Heinz Company, H. J. Institutional Food .....	13	921 Peterson & Company, Leonard Laboratory Furniture .....	78
882 American Structural Products Co. Institutional Lighting .....	7	902 Herrick Refrigerator Company Refrigerators .....	74	922 Powers Regularor Company Thermostatic Shower Mixers .....	72
883 Ampco Corporation Sound Projector .....	65	903 Hillyard Sales Companies Floor Maintenance Catalog .....	76	923 Radio Corporation of America Sound Projector .....	77
884 Armour and Company Institutional Food .....	84	904 Huntington Laboratories, Inc. Floor Maintenance .....	58	924 Rastetter & Sons Company, Louis Folding Chairs .....	80
885 Bausch & Lomb Optical Company Microscopes .....	53	905 Inertol Company Paint .....	70	925 Remington Rand, Inc. Accounting Machine .....	64
886 Bell & Howell Company Movie Cameras & Projectors.....	69	906 Insurance Company of North America Companies Booklet .....	74	926 Ric-wil Company Insulated Piping .....	5
887 Brunswick-Balke-Collender Company Bowling Installations .....	60	907 Johns-Manville Acoustical Material .....	73	927 Sanymetal Products Company, Inc. Toilet Compartments .....	55
888 Colorado Fuel & Iron Corporation, The, Wickwire Spencer Steel Division Steel Fence .....	82	908 Johnson & Son, Inc., S. C. Floor Maintenance .....	15	928 Scientific Apparatus Makers' Assn. Laboratory Equipment .....	75
889 Copperweld Steel Company Copper Covered Fence .....	62	909 Laboratory Furniture Company, Inc. Laboratory Furniture .....	10	929 Sexauer Mfg. Company, J. A. Faucet Washers .....	65
890 Crane Company Plumbing Equipment .....	14	910 Lawson Associates, Inc., B. H. Institutional Finance .....	71	930 Sexton & Company, John Institutional Food...following page 64	
891 Crotty Brothers, Inc. Food Service Management .....	81	911 Legge Company, Inc., Walter G. Floor Maintenance .....	88	931 Sikes Company, Inc. Institutional Furniture .....	3rd cover
892 Davenport & Son, Inc., A. C. Bulletin Boards .....	78	912 Libby Glass Company Tumblers .....	12	932 Simmons Company Institutional Furniture .....	79
893 Dick Company, A. B. Duplicating Equipment .....	78	913 Medart Products, Inc., Fred Steel Lockers .....	51	933 Sloan Valve Company Flush Valves .....	1
894 Dolge Company, C. B. Liquid Soap .....	82	914 Michaels Art Bronze Company, Inc. Display Cases .....	72	934 Smith's Sons Company, John E. Kitchen Equipment .....	68
895 Dudley Lock Corporation Locks .....	80	915 Minneapolis-Honeywell Regulator Co. Temperature Control .....	2nd cover	935 Smooth Ceilings System Ceiling Building Method .....	80
896 Finnell System, Inc. Floor Maintenance .....	4th cover	916 Moore, Inc., P. O. Key Control .....	70	880 Stancel Asphalt & Bitumuls Co. Tennis Court Resurfacing .....	83
897 General Fireproofing Company Aluminum Chairs .....	63	917 National Biscuit Company Institutional Food .....	2	936 Thonet Industries, Inc. Institutional Furniture .....	81
898 Guth Company, Edwin F. Institutional Lighting .....	54	918 National Biscuit Company Institutional Food .....	59	937 Toastmaster Products Division of McGraw Electric Company Toasters .....	61
				938 Toledo Scale Company Kitchen Machines .....	67
				939 Universal Bleacher Company Folding Stands .....	83
				940 Vogel-Peterson Company Steel Coat Rack .....	80
				941 Vonnegut Hardware Company Door Closing Equipment .....	8
				942 Wakefield Brass Company, F. W. Institutional Lighting .....	16
				943 Walrus Manufacturing Company Institutional Furniture .....	70
				944 West Disinfecting Company Dust Control .....	9
				945 Weston Electrical Instrument Corp. Electrical Instruments .....	68
				946 Wheeler Comapny, Inc., M. G. Institutional Lighting .....	56
				888 Wickwire Spencer Steel Division of The Colorado Fuel & Iron Corp. Steel Fence .....	82

November, 1950

Please ask the manufacturers, indicated by the numbers I have circled, to send further literature and information provided there is no charge or obligation.

## WHAT'S NEW

849 857 865 873  
850 858 866 874  
851 859 867 875  
852 860 868 876  
853 861 869 877  
854 862 870 878  
855 863 871  
856 864 872

## ADVERTISEMENTS

879 887 895 903 911 919 927 935 943  
880 888 896 904 912 920 928 936 944  
881 889 897 905 913 921 929 937 945  
882 890 898 906 914 922 930 938 946  
883 891 899 907 915 923 931 939  
884 892 900 908 916 924 932 940  
885 893 901 909 917 925 933 941  
886 894 902 910 918 926 934 942

NAME

TITLE

INSTITUTION

ZIP CODE



"...and let's keep maintenance costs **DOWN** by installing SIKES "COLONIST CRAFT" in all dormitories. It's the perfect answer to our problems..."

## SIKES MAINTENANCE COSTS ARE LOW...

Reasonable in first-cost . . . inexpensive to maintain, SIKES "Colonist Craft" furniture admirably meets the needs of modern-day institutions. For here is a mellow charm, a lasting beauty that actually *increases* with age despite rough usage. The "homey," attractive simplicity of Early American design is enhanced by the glowing richness of SIKES hand-rubbed "Butterscotch" finish

. . . easy to care for, resistant to hard knocks.

Yes, Sikes "Colonist Craft" is the perfect answer . . . the *economical* answer for dormitories, reception rooms, rest rooms, and dining halls. Write today for specific information for your needs, outlining any particular furnishing problems that confront you.



**SIKES** furniture

FOR DORMITORIES, DINING ROOMS, LIBRARIES,  
CLASSROOMS, OFFICES, RECEPTION ROOMS, CLUBS

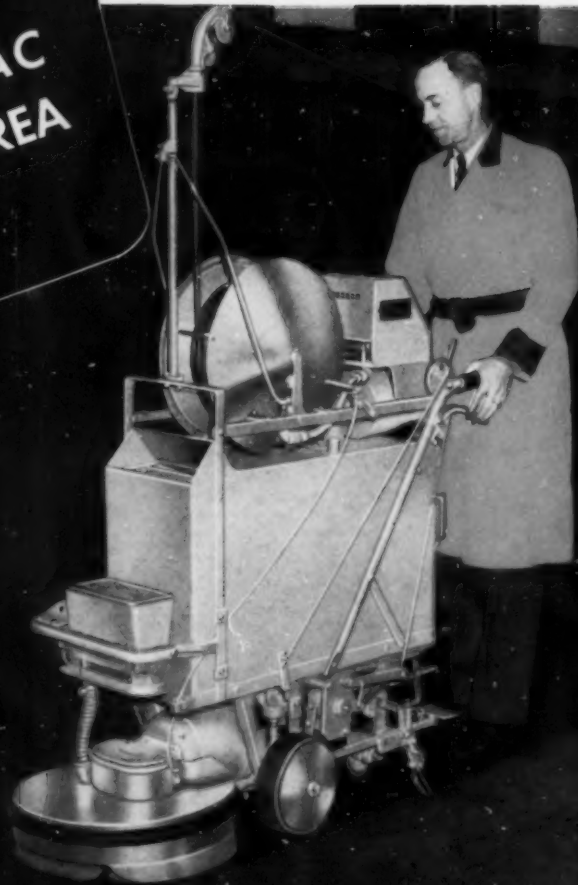


THE SIKES COMPANY, INC.

• 32 CHURCHILL STREET •

BUFFALO 7, N. Y.

**NOW...A  
SCRUBBER-VAC  
FOR SMALL-AREA  
SCHOOLS!**



## Cuts Floor-Cleaning Time 2/3!

- Specially designed for buildings with 2,000 to 15,000 sq. ft. of floor space
- Applies the cleanser, scrubs, rinses if required, and picks up in **ONE** operation
- Handles **BOTH** wet and dry work
- Self-propelled — operator merely guides the machine
- Can be leased or purchased  
(Leasing budgets cleaning expense)

### FREE DEMONSTRATION ON YOUR OWN FLOORS!

See what you would save with a Finnell Scrubber-Vac. Finnell makes several models and sizes. For demonstration, consultation, or literature, phone or write nearest Finnell Branch or Finnell System, Inc., 4411 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

Now the labor-saving advantages of *combination-machine-scrubbing* are available to small as well as larger schools. The new 418P Finnell Scrubber-Vac, for small-area buildings with 2,000 to 15,000 sq. ft. of floor space, cleans floors in *approximately one-third the time* required with a conventional 15 or 18-inch polisher-scrubber using separate equipment for picking up. A Finnell Scrubber-Vac speeds cleaning by handling four operations in one! It applies the cleanser, scrubs, rinses, and picks up (damp-dries the floor) — all in a single operation.

The new 418P Scrubber-Vac can be used for the dry work (polishing, steel-wooling, et cetera) as well as the scrubbing. And all the refinements of Finnell's larger combination machines are embodied in this smaller unit (18-inch brush ring). Has new type of water valve that assures uniform flow of water . . . powerful vacuum for efficient pickup (performs quietly) . . . a Finnell-developed trouble-free clutch . . . G. E. Motors and Timken Bearings. Incidentally, it's good to know that when you choose Finnell Equipment, a Finnell man is readily available to help train your maintenance operators in its proper use.

## FINNELL SYSTEM, INC.

*Pioneers and Specialists in*  
FLOOR-MAINTENANCE EQUIPMENT AND SUPPLIES

BRANCHES  
IN ALL  
PRINCIPAL  
CITIES